SCIENCE

Index to Volume 197 July-September 1977

Editorial Board

RICHARD E. BALZHISER JAMES F. CROW WARD GOODENOUGH CLIFFORD GROBSTEIN HERBERT S. GUTOWSKY N. BRUCE HANNAY DONALD KENNEDY HANS LANDSBERG NEIL E. MILLER
EDWARD NEY
FRANK W. PUTNAM
MAXINE F. SINGER
RAYMOND H. THOMPSON
PAUL E. WAGGONER
F. KARL WILLENBROCK

Editorial Staff

WILLIAM D. CAREY Publisher

Hans Nussbaum Business Manager

PHILIP H. ABELSON Editor

EARL J. SCHERAGO, Advertising Director

Published by the

American Association for the Advancement of Science

1515 Massachusetts Avenue, NW, Washington, D.C. 20005

Printed in Richmond, Virginia, by William Byrd Press

Copyright 1977 by the American Association for the Advancement of Science

Issue No.	Date	Pages	Issue No.	Date	Pages
4298	LJuly	1-100	4305	19 August	709-808
4299	8 July	101-200	4306	26 August	809-932
4300	15 July	201-308	4307	2 September	933-1024
4301	22 July	309-416	4308	9 September	1025-1116
4302	29 July	417-508	4309	16 September	1117-1216
4303	5 August	509-608	4310	23 September	1217-1316
4304	12 August	609-708	4311	30 September	1317-1398

The names of authors of books reviewed are in SMALL CAPITALS.

AAAS workshop on scientific freedom and human rights (AAAS), R. Chalk, 40

Abele, L. G., and S. Gilchrist: Homosexual rape and sexual selection in acanthocepha-

lan worms, 81 Abell, C. W. See Shen, R. Abelson, P. H. (editorials): Coercion of medical schools, 1137; Commission on Federal Paperwork, 1237; Control of automobile Paperwork, 1237; Control of automobile emissions, 517; Energy and climate, 941; Public opinion and energy use, 1325; Recombinant DNA, 721; The Tris controversy, 113; The Voyager missions, 1039

Academy's surveys of fundamental research 1962–1974, in retrospect, The, W. W. Low-

rance, 1254

Adamec, R. See Barnes, C. A., et al. Adams, J. E. See Hosobuchi, Y., et al. Adams, R. N. See Plotsky, P. M., et al.

Adenine and adenosine are toxic to human lymphoblast mutants defective in purine salvage enzymes, M. S. Hershfield et al., 1284

Adenylate cyclase of brain reflects propensity for breast cancer in mice, An, G. C. Cotzias and L. C. Tang, 1094 Adey, W. H.: book review of Calcareous al-

gae, 44

Adipose tissue regeneration following lipecto-

my, I. M. Faust et al., 391 Adler, I. See Andre, C. G., et al.

Adler, K., et al.: Imprisoned Argentine scien-

tist (*letter*), 938
Adriamycin: the role of lipid peroxidation in cardiac toxicity and tumor response, C. E. Myers et al., 165

Advances in American medicine, J. Z. BOW-ERS and E. F. PURCELL (Eds.), book review by G. G. Reader, 750

African buffalo, The. A. R. E. SINCLAIR, book review by J. F. Eisenberg, 857
Agarwal, K. K. See Gelernter, H. L., et al.
Age-related changes in the hepatic endoplasmic reticulum: a quantitative analysis, D. L. Schmucker et al., 1005 Aghajanian, G. K. See Wang, R. Y.

Agriculture and behavioral science: emerging orientations, W. S. Saint and E. W. Cow-

Arens, T. J. See Jeanloz, R., et al.
Aisen, P. See Hu, H.-Y. Y., et al.
Aist, J. R.: Mechanically induced wall appositions of plant cells can prevent penetration by a parasitic fungus, 568

Alaskan gas and human rights (letter), A.

Alcohol tolerance in a cholinergic nerve terminal: relation to the membrane expansionfluidization theory of ethanol action, M. Curran and P. Seeman, 910 Alden, R. A. See Matthews, D. A., et al.

Alder, B. J.: book review of Atomic dynamics in liquids and Theory of simple liquids, 150

Alnaes, E.: Flickering schoolchildren (letter) 1036

Aluminum absorption and distribution: effect of parathyroid hormone, G. H. Mayor et

al., 1187 Amazon Basin, another Sahel?, The (letter), I. Friedman, 7

American ice cream (letter), L. T. Rutledge,

Ammonia in the human airways: neutralization of inspired acid sulfate aerosols, T. V. Larson et al., 161 Amsel, A., et al.: Ultrasound emission in in-

fant rats as an indicant of arousal during appetitive learning and extinction, 786

Anderson, G. R., and L. M. Matovcik: Expression of murine sarcoma virus genes in uninfected rat cells subjected to anaerobic stress, 1371

Anderson, J. N. See Dryden, G. L. Anderson, P. A. V., and G. O. Mackie: Elec-

trically coupled, photosensitive neurons control swimming in a jellyfish, 186

Anderson, T. F. See Hammarström, S., et al. Andre, C. G., et al.: Lunar surface chemistry: a new imaging technique, 986 Andres, C. M. See Fox, I. H., et al.

Androgen concentration in motor neurons of cranial nerves and spinal cord, M. Sar and W. E. Stumpf, 77

Angiotensin converting enzyme: induction by steroids in rabbit alveolar macrophages in culture, J. Friedland et al., 64; erratum,

Angiotensin: physiological role in water-deprivation-induced thirst of rats, R. L. Malvin et al., 171

Anglin, J. H. See Nordquist, R. E., et al. Animal parthenogenesis, O. Cuellar, 837 Annau, Z. See Fechter, L. D.

Antarctic soft-bottom benthos in oligotrophic and eutrophic environments, P. K. Dayton and J. S. Oliver, 55

Antiallatotropins: inhibition of corpus allatum development, W. S. Bowers and R. Martinez-Pardo, 1369

Antibody-induced antigen redistribution and shedding from human breast cancer cells, R. E. Nordquist et al., 366 Antigenic shift of visna virus in persistently

infected sheep, O. Narayan et al., 376 Antiserums to neurons and to oligodendroglia from mammalian brain, S. E. Poduslo et

al., 270 Appetitive and replacement naps: EEG and behavior, F. J. Evans *et al.*, 687 Aprille, J. R.: Reve's syndrome: patient se-

rum alters mitochondrial function and morphology in vitro, 908

Archeoastronomy at Pueblo Bonito (letters), R. A. Williamson and J. E. Reyman, 618 Argyle, E., et al.: Interfering satellite (letter),

Armstrong, D. See Walzer, P. D., et al. Arnold, D. L., et al.: Canadian saccharin study (letter), 320

Arnold, R. R., et al.: A bactericidal effect for human lactoferrin, 263

Arnold, S. J.: Polymorphism and geographic variation in the feeding behavior of the garter snake Thamnophis elegans, 676

Arthropod invasion of land during late Silurian and Devonian times, L. Størmer. 1362 Artificial pancreas using living beta cells: effects on glucose homeostasis in diabetic rats, W. L. Chick et al., 780 ARVIDSON, R. E. See MUTCH, T. A., et al.

Asbestos pollution (letters), J. T. Hack et al.,

ASHCROFT, N. W. and N. D. MERMIN, Solid state physics, book review of, 753

Association Affairs: AAAS news, 39, 547, 974; annual elections, 859; annual meeting, 38, 749, 1173; 1976 summary financial state-

ments, 976
Asteroid families: observational evidence for common origins, J. Gradie and B. Zellner,

Atomic dynamics in liquids, N. H. MARCH and M. P. TOSI, book review by B. J. Alder, 150 Auditory evoked potentials as probes of hemi-

spheric differences in cognitive processing, D. W. Shucard et al., 1295 Augmenting mental chronometry: the P300 as

a measure of stimulus evaluation time, M. Kutas et al., 792

Australia antigen and the biology of hepatitis B, B. S. Blumberg, 17; erratum, 1266

Autoantibodies to zona pellucida: a possible cause for infertility in women, C. A. Shiv-

ers and B. S. Dunbar, 1082 Awramik, S. M.: book review of Fossil algae, 1072

Axelrod, J. See Paul, S. M.

Axial bending in the early chick embryo by a cyclic adenosine monophosphate source, A. Robertson and A. R. Gingle, 1078

AYALA, F. J. See DOBZHANSKY, TH., et al.

Bacteria-plant cell surface interactions: active immobilization of saprophytic bacteria in plant leaves, V. O. Sing and M. N.

Schroth, 759 Bactericidal effect for human lactoferrin, A. R. R. Arnold et al., 263

Bacteriophages in live virus vaccines: lack of evidence for effects on the genome of rhesus monkeys, J. B. Milstien et al., 469

Bag cell control of egg laying in freely behav-ing Aplysia, H. M. Pinsker and F. E. Dudek. 490

Bagnara, J. T., and J. S. Frost: Leopard frog

supply (letter), 106
Bak, M. J. See Loeb, G. E., et al.
Bakke case and the Fourteenth Amendment,
The (letter), C. S. Ralston, 514
Balachandran, N. K., et al.: Concorde sonic

booms as an atmospheric probe, 47 Barash, D. P.: Sociobiology of rape in mal-

lards (Anas platyrhynchos): responses of the mated male, 788

Barath, F. T. See Staelin, D. H., et al. Barber, L. E. See Evans, H. J. Barber, R. T.: Discovery of the Monitor (letter), 1135

Barbreau, A. See de Marsily, G., et al. Barlow, R. B., Jr., et al.: Efferent optic nerve fibers mediate circadian rhythms in the Limulus eye, 86

BARNARD, N., and S. TAMOTSU, Metallurgical remains of ancient China, book review of, 753

Barnes, C. A., et al.: Circadian rhythm of synaptic excitability in rat and monkey central nervous system, 91

Barsukov, L. I. See Bergelson, L. D. Bartholomew, J. C. See Gamper, H. B., et al. Basalla, G.: book review of The visible scien-

tists, 977 Basic research productivity (letter), R. Roy, 1322

Bassham, J. A.: Increasing crop production through more controlled photosynthesis, 630

Bauer S. H. See Adler, K., et al. Bauman, A. J. See Yokoyama, H., et al. Baumgartner, D. J. See Okun, D. A.

Baylor, E. R., et al.: Water-to-air transfer of virus, 763

Baylor, M. B. See Baylor, E. R., et al. Beck, C. W.: Taxonomists wanted (letter), 620

Becklin, E. E. See Werner, M. W., et al. Beddington, J. R., and R. M. May: Harvest-ing natural populations in a randomly fluctuating environment, 463 Behavior of law, The, D. BLACK, book review

by K.-F. Koch, 149

Bekoff, M.: Social communication in canids: evidence for the evolution of a stereotyped mammalian display, 1097

Bell, M. A.: book review of The biology of sticklebacks, 451

Benardo, L. See Scheff, S., et al. Benjamin, D. M. See Ikeda, T., et al. Bergelson, L. D., and L. I. Barsukov: Topological asymmetry of phospholipids in membranes, 224

Berger, T. W., and R. F. Thompson: Limbic system interrelations: functional division among hippocampal-septal connections,

Berger, W. H., and J. S. Killingley: Glacial-Holocene transition in deep-sea carbonates: selective dissolution and the stable isotope signal, 563

Berkov, B. See Sklar, J., et al.

BERL, S., et al. (Eds.), Metabolic compartmentation and neurotransmission, book review of, 152

β-Endorphin and adrenocorticotropin are secreted concomitantly by the pituitary gland, R. Guillemin et al., 1367

Bethe, H. A. See Adler, K., et al.

Bielefeld, M. J. See Andre, C. G., et al. Bigazzi, P. E., et. al.: Sperm autoantibodies in vasectomized rats of different inbred strains, 1282

Biggar, D. See Fox, I. H., et al. Bild, R. W., and J. T. Wasson: Netschaëvo: a new class of chondritic meteorite, 58 Binkley, S., et al.: Timekeeping by the pineal

gland, 1181

Binocular differences in cortical receptive fields of kittens after rotationally disparate binocular experience, P. G. Shinkman and C. J. Bruce, 285

Bioactivation as a model for drug design bioreductive alkylation, H. W. Moore, 527 Biochemical aspects of plant-parasite rela-tionships, J. FRIEND and D. R. THRELFALL (Eds.), book review by D. R. Strong, Jr., 1071

Biochemical identification of homogentisic acid pigment in an ochronotic Egyptian mummy, F. F. Stenn *et al.*, 566
Biochemistry of smooth muscle, The, N. L.

STEPHENS (Ed.), book review by R. E. Davies, 858

Biological nitrogen fixation for food and fiber production, H. J. Evans and L. E. Barber, 332

Biology of the sticklebacks, The, R. J. WOOT-TON, book review by M. A. Bell, 451 Biomethylation of toxic elements in the envi-

ronment, W. P. Ridley et al., 329 Bjeldanes, L. F., and G. W. Chang: Mutagenic activity of quercetin and related com-pounds, 577

Black, B. L., and F. Moog: Goblet cells in embryonic intestine: accelerated dif-ferentiation in culture, 368

BLACK, D., The behavior of law, book review of, 149

Bleed, P.: Early flakes from Sozudai, Japan:

are they man-made?, 1357 Bloch, K. J. See Walker, W. A., et al. Bloemendal, H.: The vertebrate eye lens, 127 Bloom, F. See Guillemin, R., et al.

Blumberg, B. S.: Australia antigen and the biology of hepatitis B, 17; erratum, 1466 Bock, G. R., and J. C. Saunders: A critical

period for acoustic trauma in the hamster and its relation to cochlear development, 396

Boffey, P. M. (News and Comment): Carter and decline in research funding, 32 Boggs, C. L. See Dunlap-Pianka, H., et al.

Boivie, R. H. See Gelernter, H. L., et al. Bolanowski, S. J., Jr. See Barlow, R. B., Jr.,

Bolin, J. T. See Matthews, D. A., et al. Bone, L. W., and H. H. Shorey: Disruption of sex pheromone communication in a nematode, 694

Bonte, F. See Lewis, M., et al. Bookstein, F. L.: Orthogenesis of the hominids: an exploration using biorthogonal grids, 901

Borcherding, W. See Horowitz, S., et al. BORDLEY, J., III, and A. M. HARVEY, Two centuries of American medicine, book re-view of, 750

Borkman, R. F. See Lerman, A. S Borysenko, J. See Johnson, G., et al.

BOWERS, J. S., and E. F. PURCELL (Eds.), Advances in American medicine, book review

Bowers, W. S., and R. Martinez-Pardo: Antiallatotropins: inhibition of corpus allatum development, 1369 Boynton, R. M. See Rodieck, R. W., et al.

Brachman, M. L. See Barlow, R. B., Jr., et

Brain self-stimulation: direct evidence for the involvement of dopamine in the prefrontal cortex, F. Mora and R. D. Myers, 1387 Bray, J. R.: Pleistocene volcanism and glacial initiation, 251

Brehm, J.: book review of Decision making,

Brenner, M. A. See Sterling, K., et al. Brink, R. A., et al.: Soil deterioration and the growing world demand for food, 625; erra-

Broers, A. N. See Feder, R., et al.

Brown, D. S., and D. E. Copeland: Overlapping platelets: a diffusion barrier in a teleost swimbladder, 383

Brownell, P. H.: Compressional and surface waves in sand: used by desert scorpions to locate prey, 479
Brownstone, P.: Medical school tuition (let-

ter), 1324 Bruce, C. J. See Shinkman, P. G.

Bruce, J. G.: Somali Current: recent measurements during the southwest monsoon. 51 Brugh, M., Jr.: Butylated hydroxytoluene protects chickens exposed to Newcastle

disease virus, 1291

Buja, L. M. See Lewis, M., et al. Buncher, C. R.: The golden fleece award: a control? (letter), 1036

Bunney, W. E., Jr. See Davis, G. C., et al. Burch, T. K.: book review of Family formation patterns and health, 1273 Burchall, J. J., et al.: Synergism between tri-

methoprim and sulfamethoxazole, 1300 BURI, A.. The stone circles of the British Isles. book review of, 360

Burns, K. A. See Krebs, C. T. Burt, D. R. See Creese, I., et al. Bush, R. C. See Fox, R., et al. Bustillo, A. E. See Drooz, A. T., et al.

Butylated hydroxytoluene protects chickens exposed to Newcastle disease virus, M. Brugh, Jr., 1291

Byers, L. See Wick, M. M., et al.

C

Calb, M. See Pavel, S., et al.

Calcareous algae, J. L. WRAY, book review by W. H. Adey, 44

Calcium carbonate production of the mare incognitum, the upper windward reef slope, at Enewetak Atoll, S. V. Smith and J. T. Harrison, 556

Calcium-dependent depression of a late outward current in snail neurons, R. Eckert and H. D. Lux, 472

Calvin, M. See Gamper, H. B., et al. Campbell, I.: San Joaquin River misplaced (letter), 1034

Campbell, R. D. See Marcum, B. A., et al. Canadian saccharin study (letter), D. L. Arnold et al 320

Carbon-13/carbon-12 ratio is relatively uniform among honeys, L. W. Doner and J. W. White, Jr., 891

Cardiac glycosides in the defensive secretion of chrysomelid beetles: evidence for their production by the insects, J. M. Pasteels and D. Daloze, 70

Carey, W. D. (editorials): How fares basic science?, 825; Last resorts, 327
Carlquist, S.: book review of The genus Epilobium (Onagraceae) in Australasia, 45

Carr, M. J.: Volcanic activity and great earth-quakes at convergent plate margins, 655

Carrier-mediated photodiffusion membranes, J. S. Schultz, 1177 Carson, H. L.: book review of Evolution and

Organismic evolution, 1272

Carter, L. J. (News and Comment): asbestos from Maryland rock quarry, 237; Auburn Dam and earthquake hazards, 643; Council on Environmental Quality imperiled, 240; [Thomas A.] Halstead to head Arms Control and Disarmament Agency, 1063; nuclear wastes, 1265; Project Seafarer, 964; tuition for future doctors, 1062; videoconference via satellite, 31

Carter's energy plan: a first step (AAAS), N. C. Joyce, 39

Casagrande, V. A. See Norton, T. T., et al Catastrophe theory: a skeptic (letter), H. J. Sussmann, 820

Catechol estrogens: presence in brain and en-docrine tissues, S. M. Paul and J. Axelrod, 657

Cerebral lateralization of haptic perception: interaction of responses to Braille and music reveals a functional basis, M. O. Smith

Chalk, R.: AAAS workshop on scientific freedom and human rights (AAAS), 40

Chang, G. W. See Bjeldanes, L. r. Chang, K. C.: book review of Metallurgical remains of ancient China, 753

Changing norms: before and after Kuhn (letters), R. J. Wurtman and W. M. Elsasser,

Channell, R. B. See Wilson, B. J., et al. Chapman, H. A., Jr. See Hibbs, J. B., Jr., et

and J. B. Hibbs, Jr.: Modulation of macrophage tumoricidal capability by components of normal serum: a central role for lipid, 282

Charlson, R. J. See Larson, T. V., et al. Chase, J. See Narayan, O., et al.

Chatani, F. See Ohnishi, E., et al. Chemical basis for feeding adaptation of pine sawflies Neodiprion rugifrons and Neo-diprion swainei, T. Ikeda et al., 497

Chemical bioinduction of rubber in guayule plant, H. Yokoyama et al., 1076 Chemical pharmacology of the synapse, D. J.

TRIGGLE and C. R. TRIGGLE, book review by R. E. Zigmond, 1175

Chemical physics of surfaces, The, s. R. MOR-RISON, book review by M. A. Ratner, 1356

Chen, A. B. See Chen, L. B., et al. Chen, L. B., et al.: Control of a cell surface major glycoprotein by epidermal growth factor, 776

Cherbas, L. See Cherbas, P., et al. Cherbas, P., et al.: Induction of acetyl-

cholinesterase activity by β -ecdysone in a *Drosophila* cell line, 275

Chesney, R. See Horowitz, S., et al.
Chey, W. See Plotsky, P. M., et al.
Chick, W. L., et al.: Artificial pancreas using living beta cells: effects on glucose homeostasis in diabetic rats, 780

Childhood IQ's as predictors of adult educa-tional and occupational status, R. B. McCall, 482

Chinese wolf, ancestor of New World dogs, The, S. J. Olsen and J. W. Olsen, 533 Chino, Y. M., et al.: Siamese cats: abnormal responses of retinal ganglion cells, 173

Chirigos, M. A. See Schultz, R. M., et al. Cho-Chung, Y. S., and B. H. Redler: Dibu-tyryl cyclic AMP mimics ovariectomy: nuclear protein phosphorylation in mammary tumor regression, 272

Cholera toxin crystals suitable for x-ray dif-fraction. P. B. Sigler et al., 1277 Christie, J. M. See Jeanloz, R., et al.

Chrysotile asbestos: health effects (letter), J. T. Hack, 1232

Chu, J. See Smith, M. O., et al. CHUPP, E. L., Gamma-ray astronomy, book review of, 151

Chylack, L. T., Jr. See Tanaka, T., et al. Circadian rhythm of synaptic excitability in rat and monkey central nervous system, C. A. Barnes et al., 91

Circulation of H+ and K+ across the plasma membrane is not obligatory for bacterial growth, F. M. Harold and J. Van Brunt, 372 Clark, J. H., and S. McCormack: Clomid or

nafoxidine administered to neonatal rats causes reproductive tract abnormalities,

Clark, M. E.: Sociobiology and scientific debate (letter), 822

CLARKE, D.D. See BERL, S., et al. Clasquin, F. F., and J. B. Cohen: Price of physics and chemistry journals, 432 Clomid or nafoxidine administered to neo-

natal rats causes reproductive tract abnormalities, J. H. Clark and S. McCormack,

Clutton-Brock, J.: Man-made dogs, 1340 Coal: the new swing fuel? (editorial), H. H. Landsberg, 9

Coercion of medical schools (editorial), P. H. Abelson, 1137

Coevolution of foraging in Bombus and nectar dispensing in *Chilopsis*: a last dreg theory, T. G. Whitham, 593

Coffaro, K. A., and R. T. Hinegardner: Immune response in the sea urchin Lytechinus pictus, 1389

Cogeneration in West Germany (letter), R. K. White and R. L. Goen, 618

Cogger, B. M. G. See Weatherley, A. H. Cohen, E. G. D.: Quantum statistics and liquid helium-3-helium-4 mixtures. 11

Cohen, H. D. See Evans, F. J., et al.

Cohen, J. B. See Clasquin, F. F. Cohen, S. S.: A strategy for the chemothera-

py of infectious disease. 431 Chon, D. V. See Wong, G. L., et al. Cole, M. F. See Arnold, R. R., et al.

Colton, C. K. See Chick, W. L., et al. Combustion of several 2,4,5-trichlorophenoxy compounds: formation of 2.3,7.8tetrachlorodibenzo-p-dioxin. R. H. Stehl and L. L. Lamparski, 1008 Commission on Federal Paperwork (editori-

al), P. H. Abelson, 1237

Communication deviance in the families of schizophrenics: a comment on the misuse of analysis of covariance, J. A. Woodward and M. J. Goldstein, 1096

Comparison of radioactive and stable T1+ diffusion in potassium chloride: demonstration of a transmutation effect. G. C. T. Wei and B. J. Wuensch. 159

Competition of \(\Delta^9\)-tetrahydrocannabinol with estrogen in rat uterine estrogen receptor binding, A. B. Rawitch et al., 1189

Complexes of stannous fluoride and other group IVB dihalides with mammalian hemoproteins, A. R. Dahl and E. Hodgson,

Compressional and surface waves in sand: used by desert scorpions to locate prey. P. H. Brownell, 479

Computer security and IBM (letter), W. L. Tuchman, 938

Computer security and the Bell System (let-

ter), R. Morris, 716
Concorde sonic booms as an atmospheric probe, N. K. Balachandran et al., 47
Conformations of prostaglandin F_{2n} and recognitive secondary.

nition of prostaglandins by their receptors. D. A. Langs et al., 1003 Consroe, P. See Feeney, D. M., et al.

Control of automobile emissions (editorial). P. H. Abelson, 517

Control of a cell surface major glycoprotein by epidermal growth factor. L. B. Chen et al., 776

Cook, M. R. See Evans, F. J., et al. Copeland, D. E. See Brown, D. S. Cornwell, D. G. See Huttner, J. J., et al.

Correlation between lipid synthesis in tumor cells and their sensitivity to humoral im-mune attack, S. I. Schlager and S. H. Ohanian, 773

Costain, C. H. See Argyle, E., et al.

Costain, C. H. See Argyle, E., et al.
Costello, W. J. See Lang, F., et al.
Cotman, C. See Scheff, S., et al.
Cotzias, G. C., and L. C. Tang; An adenylate
cyclase of brain reflects propensity for
breast cancer in mice, 1094
Couch, J. A., et al.: Kepone-induced scoliosis

and its histological consequences in fish,

Courchesne, E.: Event-related brain potentials: comparison between children and adults, 589

Covers: adobe dwellings after earthquake (12 Aug.); Boomplaas Cave. Oudtshoorn District, South Africa (8 July); C-141 transport aircraft (19 Aug.); DNA of bacteriophage A inserted into Escherichia coli chromosome (16 Sept.); green fluorescence in immunohistochemistry tests (9 Sept.); microwave spectroscopic imagery of the earth (2 Sept.); Mongolium des Sept.); Mongolian dog and Alaskan Malemute (5 Aug.); motorcycles (26 Aug.); optic disks of three kittens (15 July); plesiopid fish Calloplesiops altivelis (22 July); scorpion Paruroctonus mesaensis (29 July); shore seine to capture salmon and trout (30

Sept.); sonic booms from supersonic transport (I July); Taj Mahal (23 Sept.) Covert, D. S. See Larson, T. V., et al. Coward, E. W., Jr. See Saint, W. S. Creation by natural law, R. L. NUMBERS, book services by R. C. Taber, O.T.

review by R. C. Tobey, 977 Credit for new ideas (letter), S. C. King, 6 Creese, 1., et al.: Dopamine receptor binding enhancement accompanies lesion-induced behavioral supersensitivity, 596

Critical period for acoustic trauma in the hamster and its relation to cochlear development, G. R. Bock and J. C. Saunders,

Crocodile with laterally compressed snout: first find in Australia, R. E. Molnar, 62 Crutzen, P. J. See Heath, D. F., et al.

Cubanite: a new sulfide phase in CI meteorites, J. D. Macdougall and J. F. Kerridge.

Cuellar, H. S., and O. Cuellar: Refractoriness in female lizard reproduction: a probable circannual clock, 495

Cuellar, O.: Animal parthenogenesis, 837. See also Cuellar, H. S.

Culliton, B. J. (News and Comment): Federal Flood Insurance Program, 848; Harvard and mishandling of grant money. 1262; medical schools and U.S. foreign students. 1066; PBB contamination and the immune system, 849; sea-level canal, 1262; Titanic expedition, 848; [Arthur C.] Upton to National Cancer Institute, 737

Culture and practical reason, M. SAHLINS, book review by M. J. Swartz, 553
Cummins, R. A., et al.: Developmental theo-

ry of environmental enrichment, 692

CUNNINGHAM, A. J. (Ed.). The generation of antibody diversity. book review of, 450 Cunningham, I., and B. M. Honigberg: Infectivity reacquisition by Trypanosoma brucei brucei cultivated with tsetse salivary

glands, 1279

Curran, M., and P. Seeman: Alcohol tolerance in a cholinergic nerve terminal: relation to the membrane expansion-fluidization theory of ethanol action, 910

D

Dahl, A. R., and E. Hodgson: Complexes of stannous fluoride and other group IVB dihalides with mammalian hemoproteins,

Dahlberg, J. E.: book review of RNA polymerase, 247

Daloze, D. See Pasteels, J. M. D'Aoust, B. G., et al.: Venous gas bubbles: production by transient, deep isobaric counterdiffusion of helium against nitrogen. 889

Datta, R. S. See Howard, P. H.

DAVIDSON, E. H., Gene activity in early development, book review of, 978

Davie, E. W. See Vehar, G. A.
Davies, M. E.: The prime meridian of Mars and the longitudes of the Viking landers.

Davies, R. E.: book review of The biochemistry of smooth muscle, 858

Davies, T. A., et al.: Estimates of Cenozoic oceanic sedimentation rates, 53

Davis, G. C., et al.: Intravenous naloxone administration in schizophrenia and affective

illness, 74
Day, P. R.: Plant genetics: increasing crop yield. 1334

Dayton. P. K., and J. S. Oliver: Antarctic soft-bottom benthos in oligotrophic and eutrophic environments, 55

DEACON, H. J., Where hunters gathered, book review of, 359

Decision making, I. L. JANIS and L. MANN. book review by J. Brehm, 1355

Defective phagocytosis of isolated rod outer segments by RCS rat retinal pigment epithelium in culture, R. B. Edwards and R. B. Szamier, 1001

DeFraites, E. G. See Davis, G. C., et al. DeLuca, H. F. See Kream, B. E., et al. de Marsily, G., et al.: Nuclear waste disposal:

can the geologist guarantee isolation? Denenberg, V. H., and M. Winick: Nutrition and IQ (letters), 1133

DeNiro, M. J., and S. Epstein: Mechanism of carbon isotope fractionation associated

with lipid synthesis, 261 Densmore, J. W. See Brink, R. A., et al. 2-Deoxy-α-ecdysone from ovaries and eggs of the silkworm, Bombyx mori, E. Ohnishi et Desulfurization of coal by use of chemical comminution, P. H. Howard and R. S. Dat-

Detection and examination of anthrosols by phosphate analysis, R. C. Eidt, 1327

Detection of Lyman α emission from the saturnian disk and from the ring system, H. Weiser et al., 755 DeTitta, G. T. See Langs, D. A., et al.

Development of language-like communication without a language model, The, S. Goldin-Meadow and H. Feldman, 401

Developmental neuroethology: changes in escape and defensive behavior during growth of the lobster, F. Lang et al., 682

Developmental theory of environmental enrichment, A, R, A, Cummins et al., 692 Dewdney, P, E, See Argyle, E., et al. Dhople, A, M., and J. H, Hanks: In vitro

growth of Mycobacterium lepraemurium, an obligate intracellular microbe, 379
Diamond, I.: book review of Metabolic com-

partmentation and neurotransmission, 152 Diamond, J. M., and R. M. May: Species

turnover rates on islands: dependence on census interval, 266

Dibutyryl cyclic AMP mimics ovariectomy: nuclear protein phosphorylation in mammary tumor regression, Y. S. Cho-Chung and B. H. Redler, 272

Diesel engines and air pollution (letter), M. W. First, 1322

Diesel's advantages, The (letter), F. J. Hooven, 940

Diet and uptake of aldomet by the brain: competition with natural large neutral amino acids. D. C. Markovitz and J. D. Fernstrom, 1014

Differentiating limb tissue affects neurite growth in spinal cord cultures, E. D. Pollack and V. Liebig, 899

Dihydrofolate reductase: x-ray structure of the binary complex with methotrexate, D. A. Matthews et al., 452

1.25-Dihydroxycholecalciferol and thormone: effects on isolated osteoclastlike and osteoblast-like cells, G. L. Wong

Disasters as a necessary part of benefit-cost analyses, R. K. Mark and D. E. Stuart-Alexander, 1160

Discovery of the Monitor (letter), R. T. Barber, 1135

Disruption of sex pheromone communication in a nematode, L. W. Bone and H. H. Shorey, 694

Dizikes, L. J. See Ridley, W. P., et al.
DNA strand scission by benzo[a]pyrene diol epoxides, H. B. Gamper et al., 671

DOBZHANSKY, TH., et al., Evolution, book review of, 1272

Do cellular slime molds form intercellular junctions?, G. Johnson et al., 1300

Dolan, R., et al.: Shoreline forms and shore-

line dynamics, 49
Donchin, E. See Kutas, M., et al.
Doner, L. W., and J. W. White, Jr.: Carbon13/carbon-12 ratio is relatively uniform among honeys, 891

Donn, W. L. See Balachandran, N. K., et al. Doolittle, R. E. See Tumlinson, J. H., et al. Doolittle, R. F.: book review of The generation of antibody diversity, 450 Dopamine and adenosine 3',5'-monophos-

phate responses of single mammalian sympathetic neurons, N. J. Dun et al., 778

L-Dopa: selective toxicity for melanoma cells in vitro, M. M. Wick et al., 468

Dopamine receptor binding enhancement accompanies lesion-induced behavioral supersensitivity, I. Creese et al., 596 Douglas, R. M. See Barnes, C. A., et al.

Drinking water: new health problem (letter), R. S. Ford, 1322

Drinking water: sources and treatment (letters), D. A. Okun and D. J. Baumgartner,

Drooz. A. T., et al.: North American egg parasite successfully controls a different host genus in South America, 390 Druyan, M. E. See Sigler, P. B., et al. Dryden, G. L., and J. N. Anderson: Ovarian

hormone: lack of effect on reproductive structures of female Asian musk shrews. 782

DUCKHAM, A. N., et al. (Eds.), Food production and consumption, book review of,

Dudek, F. E. See Pinsker, H. M.

Duell, E. A. See Hammarström, S., et al. Dun, N. J., et al.: Dopamine and adenosine 3',5'-monophosphate responses of single mammalian sympathetic neurons, 778

Dunbar, B. S. See Shivers, C. A. Dunlap-Pianka, H., et al.: Ovarian dynamics in heliconiine butterflies: programmed senescence versus eternal youth, 487

Duysens, J. See Loeb, G. E., et al.

E

Early flakes from Sozudai, Japan: are they man-made?, P. Bleed, 1357

Earthquake injuries related to housing in a Guatemalan village, R. I. Glass et al., 638 Ebner, K. E. See Rawitch, A. B., et al. Eckert, R., and H. D. Lux: Calcium-depen-

dent depression of a late outward current in snail neurons, 472

Ecology of early man in southern Africa, The, R. G. Klein, 115

Ecology, sexual selection, and the evolution of mating systems, S. T. Emlen and L. W. Oring, 215

Economic appraisal of President Carter's energy program, An, W. J. Mead, 340

Editorials: Coal: the new swing fuel?, 9; Coer-

cion of medical schools, 1137; Commission on Federal Paperwork, 1237; Control of automobile emissions, 517; Energy and climate, 941; Federal reorganization: science and technology, 425; How fares basic science?, 825; An international partnership for solar power, 623; Last resorts, 327; Public opinion and energy use, 1325; Recombinant DNA, 721; Soil and oil, 213; The Tris controversy, 113; The Voyager missions 1020 sions, 1039

Edmonston, W. E., Jr. See Smith, M. O., et

Edwards, R. B., and R. B. Szamier: Defective phagocytosis of isolated rod outer segments by RCS rat retinal pigment epithelium in culture, 1001

Effective immunization of experimental monkeys against a human malaria parasite, Plasmodium falciparum, An, W. A. Siddiqui, 388

Efferent optic nerve fibers mediate circadian rhythms in the Limulus eye, R. B. Barlow, Jr., et al., 86

Efflux of cyclic nucleotides from rat pineal: release of guanosine 3'.5'-monophosphate from sympathetic nerve endings, M. Zatz and R. F. O'Dea, 174
EGGLETON, P., et al. (Eds.), Structure and

evolution of close binary systems, book review of, 449; erratum, 542

Ehrenreich, H.: book review of Solid state physics, 753
Eidt, R. C.: Detection and examination of an-

throsols by phosphate analysis, 1327 Eisenberg, J. F.: book review of The African

buffalo, 857

Eisner, T. See Adler, K., et al. Elder, D. L., and S. W. Fowler: Polychlori-

nated biphenyls: penetration into the deep ocean by zooplankton fecal pellet trans-port, 459

Electrically coupled, photosensitive neurons control swimming in a jellyfish, P. A. V. Anderson and G. O. Mackie, 186 Electrochemical concentration cells, A. F.

Hadermann, 598

Electrochemical growth of organic chargetransfer complexes, D. F. Williams, 1194 Electron probe microanalysis: uses in plant

physiology (letter), E. Epstein, 1036

Eliason, E. See Andre, C. G., et al. Elsasser, W. M. See Wurtman, R. J. Emlen, S. T., and L. W. Oring: Ecology, sexual selection, and the evolution of mating systems, 215

Empirical explorations of SYNCHEM, H. L. Gelernter et al., 1041

Energy and climate (editorial), P. H. Abelson,

Energy and inspiration (letters), J. H. Gibbons and L. S. Hyman, 324

Engineering Ph.D.'s (letter), J. D. Kemper,

Enhancement of photochemical smog by N,N'-diethylhydroxylamine in polluted ambient air, J. N. Pitts, Jr., et al., 255 Epstein, E.: Electron probe microanalysis:

uses in plant physiology (letter), 1036 and J. D. Norlyn: Seawater-based crop production: a feasibility study, 249

Epstein, S. See DeNiro, M. J. Epstein, S. S. See Rounbehler, D. P., et al.

Ericksen, G. E.: Landsat's role in brine discovery (letter), 422

Erman, M. See Langs, D. A., et al. Errata: for B. S. Blumberg (1 July, p. 17), 1266; for R. A. Brink et al. (12 Aug., p. 625), 970; for J. Friedland et al. (1 July, p. 64), 1266; for A. L. Hammond (29 July, p. 446), 545; for J. J. Huttner et al. (15 July, p. 289), 1266; for R. P. Kraft (29 July, p. 449), 542; for M. J. Moses *et al.* [196, 892 (1977)], 1266, for D. Pious and C. Soderland (19 Aug., p. 769), 970; for D. Shapley (12 Aug., p. 649), 850; for N. Wade [196, 1421 (1977)], 145

Erythrocyte carbonic anhydrase I: inherited deficiency in humans, A. G. Kendall and R. E. Tashian, 471

Estimates of Cenozoic oceanic sedimentation rates, T. A. Davies et al., 53

Europe's giant accelerator, M. GOLDSMITH and E. SHAW, book review by A. Roberts,

Evans, F. J., et al.: Appetitive and replacement naps: EEG and behavior, 687

Evans, H. J., and L. E. Barber: Biological nitrogen fixation for food and fiber production, 332 Evans, J. C., Jr., and R. I. Steinberg: Nucle-

on stability: a geochemical test independent of decay mode, 989

Evans, J. G. M. See Cummins, R. A., et al. Event-related brain potentials: comparison between children and adults, E. Courchesne, 589

Environmental choice, human behavior, and residential satisfaction, W. MICHELSON, book review by M. J. Munson, 1354

Evolution, TH. DOBZHANSKY et al., book review by H. L. Carson, 1272

Evolution and morphology of the Trilobita, Trilobitoidea and Merostomata, A. TINSSON (Ed.), book review by M. E. Taylor, 653

Experimental infarct sizing using computer processing and a three-dimensional model, M. Lewis et al., 167

Expression of murine sarcoma virus genes in uninfected rat cells subjected to anaerobic stress, G. R. Anderson and L. M. Matovcik, 1371

F

Fahrenkrug, J. See Larsson, L.-I., et al. Family formation patterns and health, A. R. OMRAN and C. C. STANDLEY (Eds.), book review by T. K. Burch, 1273 Farrell, R. H. See Adler, K., et al.

Fatty acids and their prostaglandin derivatives: inhibitors of proliferation in aortic smooth muscle cells, J. J. Huttner et al.,

289; erratum, 1266

microscopy, 259

Faust, I. M., et al.: Adipose tissue regenera-tion following lipectomy, 391; Surgical re-moval of adipose tissue alters feeding behavior and the development of obesity in rats, 393

Fechter, L. D., and Z. Annau: Toxicity of mild prenatal carbon monoxide exposure, 680

Fedde, G. F. See Drooz, A. T., et al. Fedde, V. H. See Drooz, A. T., et al. Feder, R., et al.: High-resolution soft x-ray

Federal reorganization: science and tech-nology (editorial), J. Schmandt, 425 Feeney, D. M., et al.: Marihuana and epi-

lepsy, 1301

Feldman, H. See Goldin-Meadow, S. Ferguson, E. S.: The mind's eye: nonverbal thought in technology, 827

Fernstrom, J. D. See Markovitz, D. C. Fidler, I. J., and M. L. Kripke: Metastasis results from preexisting variant cells within a malignant tumor, 893

Fine, D. H. See Rounbehler, D. P., et al. Finkelstein, R. A. See Sigler, P. B., et al. First, M. W.: Diesel engines and air pollution (letter), 1322

First three minutes, The, s. WEINBERG, book review by D. W. Sciama, 752

Fischer, P. W. F. See Stephens, J. K., et al. Fish culture: problems and prospects,

Weatherley and B. M. G. Cogger, 427
Fisher, K. A., and W. Stoeckenius: Freezefractured purple membrane particles: protein content, 72

Fisher, M. E. See Adler, K., et al. Fitz, D. R. See Pitts, J. N., Jr., et al.

Flavonoid and other chemical constituents of fossil Miocene Celtis and Ulmus (Succor Creek Flora), D. E. Giannasi and K. J. Nik-

Fletcher, E. A., and R. L. Moen: Hydrogen and oxygen from water, 1050

Flickering schoolchildren (letter), E. Alnaes, 1036

FLÜGEL, E. (Ed.), Fossil algae, book review of, 1072

Foard, D. E. See Fountain, D. W., et al. Food production and consumption, A. N. DUCKHAM et al. (Eds.), book review by C. P. Timmer, 1354

Ford, R.S.: Drinking water: new health problem (letter), 1322

Formation of a serine enzyme in the presence of bovine factor VIII (antihemophilic factor) and thrombin, G. A. Vehar and E. W. Davie, 374

Fossil algae, E. FLÜGEL (Ed.), book review by S. M. Awramik, 1072

Fountain, D. W., et al.: Lectin release by soybean seeds, 1185

Fountain, J. W., and S. M. Larson: A new satellite of Saturn?, 915

Fowler, S. W. See Elder, D. L. Fox, I. H., et al.: Purine nucleoside phos-

phorylase deficiency: altered kinetic properties of a mutant enzyme, 1084 Fox, R., et al.: Stereopsis in the falcon, 79

Fragile sites on human chromosomes: demonstration of their dependence on the type of tissue culture medium, G. R. Sutherland, 265

Frank, R. See Larson, T. V., et al. Freer, S. T. See Matthews, D. A., et al. Freeze-fractured purple membrane particles: protein content, K. A. Fisher and W. Stoeckenius, 72

Frei, E., III. See Wick, M. M., et al. French Association meets in Brittany (AAAS), A. B. Lowenfels, 975

Frenk, H. See Urca, G., et al. FRIEDI AENDER, J. S. See GILES, E.

Friedland, J., et al.: Angiotensin converting enzyme: induction by steroids in rabbit alveolar macrophages in culture, 64; erratum, 1266

Friedman, I.: The Amazon Basin, another Sahel? (letter), 7

Friedman, T. B., and D. H. Johnson: Temporal control of urate oxidase activity in Drosophila: evidence of an autonomous timer in Malpighian tubules, 477

FRIEND, J., and D. R. THRELFALL (Eds.), Biochemical aspects of plant-parasite relationships, *book review* of, 1071

Fright posture of the plesiopid fish Calloplesiops altivelis: an example of Batesian mim-

icry, J. E. McCosker, 400 FRITTS, H. C. Tree rings and climate, book review of, 361 Frost, J. S. See Bagnara, J. T.

Function of shell sculpture in marine gastropods: hydrodynamic destabilization Ceratostoma foliatum, A. R. Palmer, 1293

Gainer, H. See Schwartz, W. J. Gaidusek, D. C.: Unconventional viruses and the origin and disappearance of kuru, 943 Galletti, P. M. See Chick, W. L., et al.

Galt, J. A. See Argyle, E., et al. Galton, P. M. See Olsen, P. E.

Gamma-ray astronomy, E. L. CHUPP, book review by R. C. Haymes, 151
Gamper, H. B., et al.: DNA strand scission

by benzo[a]pyrene diol epoxides, 671 Garcia, B. See Glass, R. I., et al. Gardner, J. See Hu, H.-Y. Y., et al. Garner, W. L.: New Texico? (letter), 940

Garst, J. E. See Wilson, B. J., et al. Geer, J. C. See Huttner, J. J., et al. Gelernter, H. L., et al.: Empirical explora-

tions of SYNCHEM, 1041 Gelfand, E. W. See Fox, I. H., et al. Gene activity in early development, E. H. DA-VIDSON, book review by H. Woodland, 978 Generation of antibody diversity, The, A. J.

CUNNINGHAM (Ed.), book review by R. F. Doolittle, 450

Generation of basaltic magma, H. S. YODER, JR., book review by I. D. MacGregor, 554 Genus Epilobium (Onagraceae) in Australasia, The, P. H. RAVEN and T. E. RAVEN, book review by S. Carlquist, 45

Geochemistry and thermolysis of flavonoids, K. J. Niklas and D. E. Giannasi, 767 Geology of Mars, The, T. A. MUTCH et al., book review by W. K. Hartman, 554 Gheorghiu, C. See Pavel, S., et al.

Giannasi, D. E. See Niklas, K. J.

and K. J. Niklas: Flavonoid and other

chemical constituents of fossil Miocene Celtis and Ulmus (Succor Creek Flora), 765 Gibbons, J. H., and L. S. Hyman: Energy and

inspiration (letters), 324
Gibson, C. See Sklar, J., et al.
Gierasch, P. J. See Adler, K., et al.
Gilbert, L. E. See Dunlap-Pianka, H., et al.
Gilbert, W. Peccombingt, DNA research Gilbert, W.: Recombinant DNA research: government regulation (letter), 208

Gilchrist, S. See Abele, L. G. GILES, E., and J. S. FRIEDLAENDER (Eds.),

The measures of man, book review of, 450 Gingle, A. R. See Robertson, A.

Glacial-Holocene transition in deep-sea car-bonates: selective dissolution and the stable isotope signal, W. H. Berger and J. S. Killingley, 563
Glass, L. See Mackey, M. C.
Glass, R. I., et al.: Earthquake injuries re-

lated to housing in a Guatemalan village,

Glucocorticoid in inflammatory proliferative skin disease reduces arachidonic and hydroxyeicosatetraenoic acids. S. Hammarström et al., 994

Goad, R. F. See D'Aoust, B. G., et al. Goblet cells in embryonic intestine: accelerated differentiation in culture. B. L. Black and F. Moog, 368 Goddard, G. V. See Barnes, C. A., et al.

Goen, R. L. See White, R. K.

Golden fleece award: a control?. The (letter).

C. R. Buncher, 1036 Goldin-Meadow, S., and H. Feldman: The development of language-like communication without a language model, 401

GOLDSMITH, M., and E. SHAW, Europe's giant accelerator, book review of, 1175

Goldstein, A. See Horowitz, S., et al. Goldstein, M. J. See Woodward, J. A.

Goldstein, R. See Pavel, S., et al. GOODELL, R., The visible scientists, book review of, 977

Goodman, C. S.: Neuron duplications and deletions in locust clones and clutches, 1384 Goodman, L. R. See Couch, J. A., et al. Gordon, E. K. See Lerner, P., et al.

Gorse, R. A., Jr., et al.: Hydroxyl radical reactivity with diethylhydroxylamine, 1365 Govind, C. K. See Lang, F., et al. Gradie, J., and B. Zellner: Asteroid families: observational evidence for common ori-

gins, 254

Gradstein, F. M., et al.: Grand Banks and J-

anomaly ridge: a geological comparison, 1074

Graham, M. See Amsel, A., et al. Grand Banks and J-anomaly ridge: a geological comparison, F. M. Gradstein et al.,

Grant, A. C. See Gradstein, F. M., et al. GRANT, v., Organismic evolution, book review of, 1272

Greenberg, J. H., et al.: Inhibition of a lymphocyte membrane enzyme by Δ^9 -tetrahydrocannabinol in vitro, 475

Greenberg, M. J. See Price, D. A. Greene, S. I. See Lang, F., et al. Greisen, K. See Adler, K., et al. Grice, H. C. See Arnold, D. L., et al. Griffin, D. E. See Narayan, O., et al. Grosjean, D. See Pitts, J. N., Jr., et al. Grotzinger, K. See Myers, C. E., et al. Gudat, W. See Feder, R., et al. Gudor, R. C. See Chen, L. B., et al. Guillemin, R., et al.: β-Endorphin and ad-

renocorticotropin are secreted comitantly by the pituitary gland, 1367 Gwebu, E. T. See Huttner, J. J., et al.

Н

Hack, J. T.: Chrysotile asbestos: health effects (letter), 1232

Hack, J. T., et al.: Asbestos pollution (letters), 716

Hadermann, A. F.: Electrochemical concentration cells, 598

Hahn, W. E., et al.: One strand equivalent of the Escherichia coli genome is transcribed: complexity and abundance classes of mRNA, 582

Haloperidol: effect of long-term treatment on

rat striatal dopamine synthesis and turn-over, P. Lerner et al., 181 Hamasaki, D. I. See Chino, Y. M., et al. Hamberg, M. See Hammarström, S., et al. Hamburger, A. W., and S. E. Salmon, Primary bioassay of human tumor stem cells, 461

Hamlin, R. See Matthews, D. A., et al. Hammarström, S., et al.: Glucocorticoid in inflammatory proliferative skin disease reduces arachidonic and hydroxyeicosatetraenoic acids, 994

Hammond, A. L.: An international partnership for solar power (editorial), 623; (Research News): astronomy experiment and self-sufficiency, 1267; solar energy research, 445 (erratum, 545), 745.

and W. D. Metz (Research News): solar energy research, 241

Hanker, J. S., and D. K. Romanovicz: Phi bodies: peroxidatic particles that produce crystalloidal cellular inclusions, 897 Hanks, J. H. See Dhople, A. M.

Hannon, B.: Modern agrarianism (letter), 821 HANSEN, J. P., and I. R. MC DONALD, Theory

HANSEN, J. P., and I. R. M. DONALD, Interfy of simple liquids, book review of, 150 Harnick, L. L. See Bigazzi, P. E., et al. Harold, F. M., and J. Van Brunt: Circula-tion of H⁺ and K⁺ across the plasma membrane is not obligatory for bacterial growth, 372

Harpending, H. See Lee, R. B., et al. Harris, R. H.: The Tris ban (letter), 1132 Harrison, J. T. See Smith, S. V.

Hartman, W. K.: book review of The geology of Mars, 554

Harvesting natural populations in a randomly fluctuating environment, J. R. Beddington and R. M. May, 463

HARVEY, A. M. See BORDLEY, J., III
Harvey, C. A. See D'Aoust, B. G., et al.
Hauser, H. See Krieger, D. T., et al.
Hawkes, N. (Science in Europe): antinuclear
movement takes hold, 1167; Mr. Justice

Parker and plutonium, 141

Hay, W. W. See Davies, T. A., et al. Hayden, B. See Dolan, R., et al. Hayman, E. P. See Yokoyama, H., et al. Haymes, R. C.: book review of Gamma-ray astronomy, 151

HEAD, J. W., III. See MUTCH, T. A., et al. Hearst, J. E. See Johnston, B. H., et al.

Heath, D. F., et al.: Solar proton event: influence on stratospheric ozone, 886 HELFFERICH, C. See MC ROY, C. P

Henley, E. C., et al.: Proton-induced x-ray emission analysis of single human hair roots, 277

Hepatic binding protein: the protective role of its sialic acid residues, R. J. Stockert et al., 667

Hermans, J. See Tsernoglou, D., et al. Hershfield, M. S., et al.: Adenine and adenosine are toxic to human lymphoblast mutants defective in purine salvage enzymes.

Heuer, A. H. See Jeanloz, R., et al. Hexagonal (wurtzite) silicon, J. S. Kasper and R. H. Wentorf, Jr., 599

Heywood, J. See Dolan, R., et al.

Hibbs, J. B., Jr. See Chapman, H. A., Jr. Hibbs, J. B., Jr., et al.: Macrophage tumor killing: influence of the local environment,

High-frequency *Pn* phases observed in the Pacific at great distances, D. A. Walker, 257 High-resolution soft x-ray microscopy, R. Feder et al., 259

Hildebrandt, A. F., and L. L. Vant-Hull: Power with heliostats, 1139 Hill, G. A. See Brink, R. A., et al.

Hilmas, D. E. See Stephen, E. L., et al. Hinds, J. W. See Kaplan, M. S. Hinegardner, R. T. See Coffaro, K. A. Hirsch, J. See Faust, I. M., et al.

HLA variants of cultured human lymphoid cells: evidence for mutational origin and estimation of mutation rate, D. Pious and C. Soderland, 769; erratum, 970

Hobo, T. See Ponnamperuma, C., et al. Hodgson, E. See Dahl, A. R.

Holcomb, D. F. See Adler, K., et al. Holden, C. (News and Comment): American Enterprise Institute, 742; American Psychological Association, 1168; [Peter] Bourne part of Carter Administration, 539; Daddario leaving Office of Technology Assessment, 28; Department of Energy and research, 648; global food and nutrition research drive, 140; [Sharon] Johnson loses court battle, 743; [Gerald L.] Klerman to head the Alcohol, Drug Abuse, and Mental Health Administration, 846; Law Enforcement Assistance Administration, 236; Levich and the Soviets, 349; Office of Technology Assessment and Senator Kennedy, 27; Science admitted to congressional press gallery, 538; Smithsonian scientists lose research money, 443; strip-mine law signed, 743; tobacco subsidies and perils of smoking, 443

Holzwarth, G., and E. B. Prestridge: Multi-stranded helix in xanthan polysaccharide,

Homosexual rape and sexual selection in acanthocephalan worms, L. G. Abele and S. Gilchrist, 81

Hong, R. See Horowitz, S., et al. Honigberg, B. M. See Cunningham, I. Hoogsteen, K. See Matthews, D. A., et al. Hooven, F. J.: The diesel's advantages (letter), 940

Horowitz, S., et al.: Induction of suppressor T cells in systemic lupus erythematosus by thymosin and cultured thymic epithelium,

Hosobuchi, Y., et al.: Pain relief by electrical stimulation of the central gray matter in humans and its reversal by naloxone, 183

Host control of tumor growth, C. C. Ting et al., 571

How fares basic science? (editorial), W. D. Carey, 825

How much are nature's services worth?, W. E. Westman, 960

Howard, P. H., and R. S. Datta: Desulfurization of coal by use of chemical comminution, 668 Howe, J. W., and W. E. Knowland: Transfer-

ring solar technology (letter), 1034 Howell, N. See Lee, R. B., et al.

Hsu, W. J. See Yokoyama, H., et al. Hu, H.-Y. Y., et al.: Inducibility of transfer-

rin receptors on Friend erythroleukemic cells, 559

Human chorionic gonadotropin-like substance in nonendocrine tissues of normal subjects, Y. Yoshimoto et al., 575

Hunter, W. L. See D'Aoust, B. G., et al. Huttner, J. J., et al.: Fatty acids and their prostaglandin derivatives: inhibitors of proliferation in aortic smooth muscle cells. 289; erratum, 1266 Huxtable, R. J.: Sentence length (letter), 208

Hydrodynamic evidence in support of spacer regions in chromatin, K. S. Schmitz and B. Ramsay Shaw, 661

Hydrogen and oxygen from water, E. A. Fletcher and R. L. Moen, 1050

Hydroxyl radical reactivity with diethylhydroxylamine, R. A. Gorse, Jr., et al., 1365

Hyman, L. S. See Gibbons, J. H.

Identification of the female Japanese beetle sex pheromone: inhibition of male response by an enantiomer, J. H. Tumlinson et al.,

Ifrim, I. See Myers, C. E., et al.

Ikeda, T., et al.: Chemical basis for feeding adaptation of pine sawflies Neodiprion rugifrons and Neodiprion swainei, 497

Ikekawa, N. See Ohnishi, E., et al. Ikemoto, S., et al.: New genetic marker in hu-

man parotid saliva (Pm), 378 Immune response in the sea urchin *Lyte-chinus pictus*, K. A. Coffaro and R. T. Hinegardner, 1389

Immunological resolution of a diploid-tetraploid species complex of tree frogs, L. Maxson et al., 1012

Impaired regulation of alveolar ventilation and the sudden infant death syndrome, D. C. Shannon and D. Kelly, 367

Imprisoned Argentine scientist (letter), K. Adler et al., 938

Increasing crop production through more controlled photosynthesis, J. A. Bassham, 630 Inducibility of transferrin receptors on Friend erythroleukemic cells, H.-Y. Y. Hu et al.,

Induction of acetylcholinesterase activity by β-ecdysone in a *Drosophila* cell line, P. Cherbas et al., 275

Induction of suppressor T cells in systemic lupus erythematosus by thymosin and cultured thymic epithelium, S. Horowitz et al.,

Infectivity reacquisition by Trypanosoma brucei brucei cultivated with tsetse salivary glands, I. Cunningham and B. M. Honigberg, 1279

Influenza, C. H. STUART-HARRIS and G. C. SCHILD, book review by R. W. Schlesinger,

Influenza, P. SELBY (Ed.), book review by R. W. Schlesinger, 43

Infrared studies of star formation, M. W. Werner et al., 723

Inhibition of a lymphocyte membrane enzyme by Δ9-tetrahydrocannabinol in vitro, J. H. Greenberg et al., 475

Interciencia Association focuses on energy (AAAS), J. Rowe, 42

Interfering satellite (letter), E. Argyle et al.,

Interferon: an inducer of macrophage activation by polyanions, R. M. Schultz et al., 674

International partnership for solar power, An (editorial), A. L. Hammond, 623

Intravenous naloxone administration in schizophrenia and affective illness, G. C. Davis et al., 74

In vitro growth of Mycobacterium Jepraemurium, an obligate intracellular microbe, A. M. Dhople and J. H. Hanks, 379

Iqbal, Z. M. See Rounbehler, D. P., et al. small always beautiful? (letter), D. D. Whitney, 423

Ishimoto, C. See Tanaka, T., et al. Ito, M. H. See Yagi, N., et al. Izumi, T. See Yagi, N., et al.

Jacobs, G. H.: Visual sensitivity: significant within-species variations in a nonhuman primate, 499

James, N. P., et al.: The oldest macroborers: Lower Cambrian of Labrador, 980

JANIS, I. L., and L. MANN, Decision making, book review of, 1355

Jansa, L. F. See Gradstein, F. M., et al. Jeanloz, R., et al.: Shock-produced olivine glass: first observation, 457

Johnson, D. H. See Friedman, T. B. Johnson, G., et al.: Do cellular slime molds form intercellular junctions?, 1300 Johnson, M. A. See Johnston, B. H., et al.

Johnson, P. R. See Faust, I. M., et al. Johnson, R. See Johnson, G., et al.

Johnston, B. H., et al.: Psoralen-DNA photoreaction; controlled production of monoand diadducts with nanosecond ultraviolet laser pulses, 906

Johnston, E. J. See Staelin, D. H., et al. Jones, A. L. See Schmucker, D. L., et al. JONES, J. G. W. See DUCKHAM, A. N., et al. JONES, K. L. See MUTCH, T. A., et al. Joravsky, D.: book review of The political economy of science and The radicalisation

of science, 246 Jordain, P. B., et al.: "Kerfuffle" identified (letters), 107

Jose, M. See Kream, B. E., et al. Joyce, N. C.: Carter's energy plan: a first step (AAAS), 39

K

Kahn, P. J. See Adler, K., et al. Kaibara, K. See Dun, N. J., et al. Kaplan, M. S., and J. W. Hinds: Neurogene-

sis in the adult rat: electron microscopic analysis of light radioautographs, 1092 Karczmar, A. G. See Dun, N. J., et al.

Kasper, J. S., and R. H. Wentorf, Jr.: Hexagonal (wurtzite) silicon, 599

Kassouny, M. E. See Henley, E. C., et al. Kaufman, J. J.: book review of Quantum me-chanics of molecular conformations, 1072 Keiser, J. A. See Mayor, G. H., et al. Kelly, D. See Shannon, D. C.

Kemper, J. D.: Engineering Ph.D.'s (letter),

Kendall, A. G., and R. E. Tashian: Erythrocyte carbonic anhydrase T: inherited deficiency in humans, 471

Kepone-induced scoliosis and its histological consequences in fish, J. A. Couch et al., 585

'Kerfuffle' identified (letters), P. B. Jordain et al., 107 Kerr, R. A. (Research News): carbon dioxide

and climate, 1352 Kerridge, J. F. See Macdougall, J. D.

Kesten, H. See Adler, K., et al. Kiefer, H. C. See Sigler, P. B., et al.

Kiefer, J. See Adler, K., et al. Killingley, J. S. See Berger, W. H. King, N. E. See Wood, M. D. King, S. C.: Credit for new ideas (letter), 6 Klein, M. G. See Tumlinson, J. H., et al.

Klein, R. G.: The ecology of early man in southern Africa, 115 Kleinman, J. E. See Davis, G. C., et al. Knowland, W. E. See Howe, J. W. Kobluk, D. R. See James, N. P., et al.

Koch, K .- F .: book review of The behavior of law, 149

Kolata, G. B. (News and Comment): computer encryption and the National Security Agency, 438; National Bureau of Stan-Agency, 438; National Bureau of Standards, 968; (Research News): crytography, 747; drug design and developing new cri teria, 36; hominoids of the Miocene, 244; mathematical games, 546; parapsychology

and Einstein, 1349. See also Shapley, D. S., and G. B. Kolata

Korff, S. A. See Jordain, P. B., et al. Kosuda, L. L. See Bigazzi, P. E., et al. Kraft, R. P.: book review of Structure and evolution of close binary systems, 449; erratum, 542 Kraut, J. See Matthews, D. A., et al.

Kream, B. E., et al.: A specific high-affinity binding macromolecule for 1,25-dihydroxyvitamin D₃ in fetal bone, 1086

Krebs, C. T., and K. A. Burns: Long-term effects of an oil spill on populations of the salt-marsh crab *Uca pugnax*, 484

Krey, L. C. See Krieger, D. T., et al. Krieger, D. T., et al.: Suprachiasmatic nuclear lesions do not abolish food-shifted circadian adrenal and temperature rhythmicity.

Kripke, M. L. See Fidler, I. J. Krueger, A. J. See Heath, D. F., et al. Krugmann, H., and F. von Hippel: Radioactive wastes: a comparison of U.S. military and civilian inventories, 883

Krumhansl, J. A. See Adler, K., et al. Ku, P. K. See Mayor, G. H., et al. !Kung ecology (letter), R. B. Lee et al., 1234 Kutas, M., et al.: Augmenting mental chro-nometry: the P300 as a measure of stimulus evaluation time, 792

L

Ladd, T. L. See Tumlinson, J. H., et al. Lakowicz, J. R. See Omann, G. Lally, J. S. See Jeanloz, R., et al. Lamparski, L. L. See Stehl, R. H. Landecker, T. See Argyle, E., et al Landsat's role in brine discovery (letter), G. E. Ericksen, 422 Landsberg, H. H.: Coal: the new swing fuel? (editorial), 9

Landy, A., and W. Ross: Viral integration and excision: structure of the lambda att sites, 1147

Landy, D.: book review of Social anthropology and medicine, 1174

Lang, F., et al.: Developmental neuroethology: changes in escape and defensive behavior during growth of the lobster, 682

Langer, A. M. See Hack, J. T., et al.
Langs, D. A., et al.: Conformations of prostaglandin F_{2a} and recognition of prostaglandins by their receptors, 1003
Larsen, D. L. See Gelernter, H. L., et al.
Larson, S. M. See Fountain, J. W.
Larson, T. V., et al.: Ammonia in the human

airways: neutralization of inspired acid sul-

fate aerosols, 161 Larsson, L.-I., et al.: Vasoactive intestinal polypeptide occurs in nerves of the female

genitourinary tract, 1374 Lashinsky, H.: book review of Plasma physics, 248

Last resorts (editorial), W. D. Carey, 327 Lauris, V. See Chick, W. L., et al. Lave, C. A.: Rail transit and energy consumption (letter), 938

Lazarow, P. B.: Three hypolipidemic drugs increase hepatic palmitoyl-coenzyme A oxidation in the rat, 580

Lazarus, J. H. See Sterling, K., et al.

Lazarus, J. H. 3ee Sterning, K., et al. Lectin release by soybean seeds, D. W. Fountain et al., 1185
Ledoux, E. See de Marsily, G., et al.
Lee, R. B., et al.: !Kung ecology (letter), 1234
Lee, S. L. See Stenn, F. F., et al.
Legeckis, R.: Long waves in the eastern equatorial Pacific Ocean: a view from a prostationary satellite, 1179

geostationary satellite, 1179 Lehmkuhle, S. W. See Fox, R., et al. Leibowitz, H. W., and D. A. Owens: Nighttime driving accidents and selective visual degradation (letter), 422

Leinwand, L., and F. H. Ruddle: Stimulation of in vitro translation of messenger RNA by actinomycin D and cordycepin, 381

Leopard frog supply (letter), J. T. Bagnara and J. S. Frost, 106

Lerman, A. S., and R. F. Borkman: A method for detecting 8-methoxypsoralen in the ocu-

lar lens, 1287 Lerner, M. P. See Nordquist, R. E., et al. Lerner, P., et al.: Haloperidol: effect of longterm treatment on rat striatal dopamine synthesis and turnover, 181

Lesser, M. L. See Jordain, P. B., et al. Letz, R. See Amsel, A., et al. Levy, H. B. See Stephen, E. L., et al.

Lewis, M., et al.: Experimental infarct sizing using computer processing and a three-di-mensional model, 167

mensional model, 167 Lewis, S. See Lewis, M., et al. Lichtenbaum, S. See Adler, K., et al. Liebeskind, J. C. See Urca, G., et al. Liebig, V. See Pollack, E. D. Lii, R. R. See Gorse, R. A., Jr., et al. Like, A. A. See Chick, W. L., et al.

Limbic system interrelations: functional division among hippocampal-septal con-nections, T. W. Berger and R. F. Thompson, 587

Linchitz, R. See Hosobuchi, Y., et al.

Ling, N. See Guillemin, R., et al. Linnabary, R. D. See Wilson, B. J., et al. Linskens, H. F. See van den Ende, G.

Liquid chromatographic analysis of endogenous catecholamine released from brain slices, P. M. Plotsky et al., 904 Liss, R. H. See Myers, C. E., et al.

Livermore, A. H.: Technology topic of Pacif-Science Association meeting (AAAS),

Livesay, G. R. See Adler, K., et al. Livesey, P. J. See Cummins, R. A., et al. Loeb, G. E., et al.: Long-term unit recording

from somatosensory neurons in the spinal ganglia of the freely walking cat, 1192 Long, F. A. See Adler, K., et al.

Long-term effects of an oil spill on populations of the salt-marsh crab Uca pugnax, C. T. Krebs and K. A. Burns, 484

Long-term unit recording from somatosensory neurons in the spinal ganglia of the freely walking cat, G. E. Loeb et al., 1192 Long waves in the eastern equatorial Pacific

Ocean: a view from a geostationary satellite, R. Legeckis, 1179 LOSICK, R., and M. CHAMBERLIN (Eds.), RNA

polymerase, book review of, 247 Loss of Y-cells in the lateral geniculate nucleus of monocularly deprived tree shrews, T. T. Norton *et al.*, 784

LOUDON, J. B. (Ed.), Social anthropology and

medicine, book review of, 1174
Lovenberg, W. See Lerner, P., et al.
Lovins, A. B.: Lovins on "Lovins' fever" (letter), 1133
"Lovins' fever"? (letter), R. Nathans, 618
Lovins on "Lovins' fever" (letter), A. B.

Lovins, 1133

Low, D. See Chick, W. L., et al. Lowenfels, A. B.: French Association meets

in Brittany (AAAS), 975 Lowrance, W. W.: The Academy's surveys of fundamental research 1962–1974, in retrospect, 1254

Luben, R. A. See Wong, G. L., et al. LUBRANO, L. L., Soviet sociology of science, book review of, 856

Lunar surface chemistry: a new imaging technique, C. G. Andre et al., 986 Lux, H. D. See Eckert, R.

Lysaght, M. J. See Chick, W. L., et al.

M

Macdougall, J. D., and J. F. Kerridge: Cubanite: a new sulfide phase in CI meteorites,

MacGregor, I. D.: book review of Generation

of basaltic magma, 554
Mackey, M. D., and L. Glass: Oscillation and chaos in physiological control systems, 287
Mackie, G. O. See Anderson, P. A. V.
Macrophage tumor killing: influence of the local environment, J. B. Hibbs, Jr., et al., 279

Magleby, K. L. See Zengel, J. E.

Makdani, D. See Mayor, G. H., et al.

Malvin, R. L., et al.: Angiotensin: physiological role in water-deprivation-induced thirst of rats, 171

Mangiafico, J. A. See Stephen, E. L., et al. Man-made dogs, J. Clutton-Brock, 1340

MANN, L. See JANIS, I. L. MARCH, N. H., and M. P. TOSI, Atomic dynam-

ics in liquids, book review of, 150 Marcum, B. A., et al.: Polarity reversal in nerve-free hydra, 771

Margat, J. See de Marsily, G., et al.

Marihuana and epilepsy, D. M. Feeney et al.,

Marine scientific research issue in the Law of the Sea negotiations, Ocean Policy Com-

mittee, 230 Mark, R. K., and D. E. Stuart-Alexander: Disasters as a necessary part of benefit-cost analyses, 1160

Markovitz, D. C., and J. D. Fernstrom: Diet and uptake of aldomet by the brain: competition with natural large neutral amino acids, 1014

Marks, G. S. See Stephens, J. K., et al.
Martin, P. See Feeney, D. M., et al.
Martinez-Pardo, R. See Bowers, W. S.
MARTINSSON, A. (Ed.), book review of Evolution and morphology of the Trilobita, Trilobital and Martineze

lobitoidea and Merostomata, 653

Marx, J. L. (Research News): chitin synthesis inhibitor, 1170; gene transfer in mammalian cells, 146; new P4 laboratories, 1350; viral messenger structure, 853

Mass transit versus highways (letter), C. K. Orski, 7

Matovcík, L. M. See Anderson, G. R. Matsubara, I. See Yagi, N., et al. Matsumura, F. See Ikeda, T., et al. Matthews, D. A., et al.: Dihydrofolate reduc-

tase: x-ray structure of the binary complex with methotrexate, 452

Maugh, T. H., II (Research News): biochemical markers, 543; carcinogens in the marketplace, 1268; electron probe microanalysis, 356; herpes encephalitis and drug treatment, 973

Maxson, L., et al.: Immunological resolution of a diploid-tetraploid species complex of

tree frogs, 1012 Maxson, R. D. See Maxson, L., et al. May, R. M. See Beddington, J. R. See also

Diamond, J. M.
Mayor, G. H., et al.: Aluminum absorption and distribution: effect of parathyroid hormone, 1187

McBride, R. A., et al.: Rous sarcomas in chickens: enhanced growth coexisting with

concomitant immunity, 1079
McCall, R. B.: Childhood IO's as predictors of adult educational and occupational status, 482

McCarthy, G. See Kutas, M., et al.

McCormack, S. See Clark, J. H. McCosker, J. E.: Fright posture of the plesiopid fish Calloplesiops altivelis: an example of Batesian mimicry, 400 McCutchen, C. W.: The spinning rotation of

ash and tulip tree samaras, 691 MC DONALD, I. R. See HANSEN, J. P. McDonald, J. K. See Schwabe, C.

McFarland, H. F. See Poduslo, S. E., et al. McGhee, J. R. See Arnold, R. R., et al. McGuire, W. P. See Myers, C. E., et al.

MC KEOWN, T., The modern rise of population, book review of, 652

McKhann, G. M. See Poduslo, S. E., et al. McNamara, P. D. See Segal, S., et al. McNaughton, B. L. See Barnes, C. A., et al. McQueen, J. E., Jr. See Tsernoglou, D., et al.

MC ROY, C. P., and C. HELFFERICH (Eds.), Seagrass ecosystems, book review of, 1071 Mead, W. J.: An economic appraisal of President Carter's energy program, 340
Measures of man, The, E. GILES and J. S.

FRIEDLAENDER (Eds.), book review by C. E. Oxnard, 450

Mechanically induced wall appositions of plant cells can prevent penetration by a parasitic fungus, J. R. Aist, 568

Mechanism of carbon isotope fractionation associated with lipid synthesis, M. J. De-Niro and S. Epstein, 261

Medical school tuition (letter), P. Brown-

stone, 1324 Melcher, C. L., and D. W. Zimmerman: Thermoluminescent determination of prehistoric heat treatment of chert artifacts,

Mellors, A. See Greenberg, J. H., et al. Menzies, R. T., and R. K. Seals, Jr.: Ozone monitoring with an infrared heterodyne radiometer, 1275

MERMIN, N. D. See ASHCROFT, N. W. Metabolic compartmentation and neurotransmission, s. BERL et al. (Eds.), book review by I. Diamond, 152

Metallurgical remains of ancient China, N. BARNARD and S. TAMOTSU, book review by K. C. Chang, 753

Metastasis results from preexisting variant cells within a malignant tumor, I. J. Fidler and M. L. Kripke, 893

Method for detecting 8-methoxypsoralen in the ocular lens, A, S. Lerman and R. F. Borkman, 1287

Metric of color borders, R. W. Rodieck et al., 1195

Metz. W. D. (News and Comment): Department of Energy and rising opposition, 1166; New York blackout, 441; (Research News): solar energy research, 353, 640, 971. See also Hammond, A. L., and W. D. Metz

MICHELSON, W., Environmental choice, human behavior, and residential satisfaction, book review of, 1354

Microwave spectroscopic imagery of the earth, D. H. Staelin et al., 991
Milch, P. O. See Sterling, K., et al.
Milgram, J. W. See Stenn, F. F., et al.

Miller, M. See Johnson, G., et al.
Milo, G. E. See Huttner, J. J., et al.
Milsom, J. P. See Morgan, M. Y., et al.
Milstien, J. B., et al.: Bacteriophages in live

virus vaccines: lack of evidence for effects on the genome of rhesus monkeys, 469 Minaguchi, K. See Ikemoto, S., et al.

Mind's eye, The: nonverbal thought in technology, E. S. Ferguson, 827
Minick, S. See Guillemin, R., et al.
Mining the Apollo and Amor asteroids, B.
O'Leary, 363
Minbels D. S. Learn, M. Minbels D. S. Learn, 363

Mishelevich, D. See Lewis, M., et al.

MITTON, S. See EGGLETON, P., et al. Mizuno, T. See Ohnishi, E., et al.

Modern agrarianism (letter), B. Hannon, 821 odern rise of population, The, T. MC KEOWN, book review by E. van de Modern rise Walle, 652

Modulation of macrophage tumoricidal capability by components of normal serum: a central role for lipid, H. A. Chapman, Jr., and J. B. Hibbs, Jr., 282 Moen, R. L. See Fletcher, E. A.

Molecular graphics: application to the structure determination of a snake venom neurotoxin, D. Tsernoglou et al., 1378

Molnar, R. E.: Crocodile with laterally compressed snout: first find in Australia, 62 Moodie, C. A. See Arnold, D. L., et al. Moog, F. See Black, B. L.

Mooney, J. S. See Schmucker, D. L., et al.

Moore, C. B. See Johnston, B. H., et al. Moore, H. W.: Bioactivation as a model for drug design bioreductive alkylation, 527

Moorthy, A. V. See Horowitz, S., et al. Moos, H. W. See Weiser, H., et al. Mora, F., and R. D. Myers: Brain self-stimulation: direct evidence for the involvement of dopamine in the prefrontal cortex, 1387

Morell, A. G. See Stockert, R. J., et al. Morgan, J. L., et al.: Quantitation of cy-toplasmic tubulin by radioimmunoassay,

Morgan, M. Y., et al.: Ratio of plasma alphan-butyric acid to leucine as an empirical marker of alcoholism: diagnostic value, 1183

Morphine and enkephalin: analgesic and epileptic properties, G. Urca et al., 83

Morris, R.: Computer security and the Bell System (letter), 716

MORRISON, S. R., The chemical physics of sur-

faces, book review of, 1356 Morse, D. H.: Resource partitioning in bumble bees: the role of behavioral factors.

Mosesson, M. W. See Chen, L. B., et al. Motion sickness: an evolutionary hypothesis, M. Treisman, 493

Mountcastle, V. B. See Yin, T. C. T.

Mouw, D. See Malvin, R. L., et al. Multistranded helix in xanthan polysaccha-ride, G. Holzwarth and E. B. Prestridge,

Munro, I. C. See Arnold, D. L., et al. Munson, M. J.: book review of Environmental choice, human behavior, and residential satisfaction, 1354

Mutagenic activity of quercetin and related compounds, L. F. Bjeldanes and G. W. Chang, 577

MUTCH, T. A., et al., The geology of Mars, book review of, 554

Myers, C. E., et al.: Adriamycin: the role of lipid peroxidation in cardiac toxicity and tumor response, 165

Myers, R. D. See Mora, F.

N

Nakajima, H. See Yagi, N., et al. Narayan, O., et al.: Antigenic shift of visna virus in persistently infected sheep, 376 Nathans, R.: "Lovins' fever"? (letter), 618 Neale, A.: Alaskan gas and human rights (let-Nechols, J. R. See Tauber, C. A., et al. Nelson, J. W. See Henley, E. C., et al. Nepotism and the evolution of alarm calls, P. W. Sherman, 1246

Netschaëvo: a new class of chondritic mete-orite, R. W. Bild and J. T. Wasson, 58 Neugebauer, G. See Werner, M. W., et al. Neuman, T. S. See D'Aoust, B. G., et al. Neural principles in vision, F. ZETTLER and R.

WEILER (Eds.), book review by P. Wit-

kovsky, 43

Neurogenesis in the adult rat: electron microscopic analysis of light radioautographs, M. S. Kaplan and J. W. Hinds, 1092 Neuron duplications and deletions in locust

clones and clutches, C. S. Goodman, 1384 New genetic marker in human parotid saliva

(Pm), S. Ikemoto *et al.*, 378 New satellite of Saturn?, A, J. W. Fountain and S. M. Larson, 915

New Texico? (letter). W. L. Garner, 940 News and Comment: Agent Orange, 966; American Enterprise Institute, 742; American Psychological Association, 1168; asbestos from Maryland rock quarry, 237; Auburn Dam and earthquake hazards, 643; Bakke case and minority admissions, 25; B-1 bomber canceled, 536; Biological Sciences Curriculum Study "wine" 234; IDences Curriculum Study "wins." ter| Bourne part of Carter Administration. 539; bowhead whale and the Eskimo, 847; Carter Administration and decline in research funding, 32; censorship of issues of Science, 646; China after Mao, 739; climatologists and predictions, 647; Clinch River breeder, 350; computer encryption and the National Security Agency, 438; Council on Environmental Quality iled, 240; crime computer project, 138; cryp tology, 1345; Daddario leaving Office Technology Assessment, 28; Department of Energy, 648, 1166; Executive Office reorganization, 442; export control of U.S. trade and technology, 1261; Federal Flood Insurance Program, 848; Federal Trade Commission and medical ethics, 1346; foreign medical students, 346; game the-orist Morgenstern dies, 649 (erratum, 850); gene splicing, 348; global food and nutri-tion research drive, 140; [Thomas A.] Halstead to head Arms Control and Disarmament Agency, 1063; Harvard and

mishandling of grant money, 1262; ice cream and the Food and Drug Administration, 844; Institute of Electrical and Electronic Engineers, 741; insulin team and NIH Guidelines, 1342; [Sharon] Johnson loses court battle, 743; [Gerald L.] Klerman to head the Alcohol, Drug Abuse, and Mental Health Administration, 846; [Thomas S.] Kuhn, revolutionary theorist of science, 143; Law Enforcement Assistance Administration, 236; Levich and the Soviets, 349; [Vincent E.] McKelvey ousted as Geological Survey director, 1264; medical schools and U.S. foreign students, 1066; Mosher to head House Science and Technology Committee staff, 967; National Bureau of Standards, 968; New York blackout, 441; nuclear wastes. 1265; ocean scientists and Law of the Sea. 645; oceanography research office at Bay Saint Louis, 1164; Office of Tech-nology Assessment, 27, 1164, 1348; parapsychology and Einstein, 1349; PBB contamination and the immune system, 849; pesticide safety data accessible to public, 1346; Press and Office of Science and Technology Policy, 538; Project Seafarer, 964; RANN reorganization, 1347; reactor safety and Rasmussen report, 29; Science admitted to congressional press gallery, 538; science education directorate at the National Science Foundation, 233; sea-level canal, 1262; Seveso and the dioxin wasteland, 1064; sex banned from outer space, 1163; Smithsonian scien ists lose research money. 443; SRI International given "golden fleece" award, 1165; strip-mine law signed, 743; telecommunications eavesdropping by the National Security Agency alleged, 1061; Titanic expedition, 848; tobacco subsidies and perils of smoking, 443; tuition for future doctors. 1062; [Arthur C.] Upton to National Cancer Institute. 737; videoconference via satellite, 31; *The Zetetic*, 646, 1344

Nighttime driving accidents and selective visual degradation (letter), H. W. Leibowitz and D. A. Owens, 422

Niklas, K. J. See Giannasi, D. E.

and D. E. Giannasi: Geochemistry and thermolysis of flavonoids, 767 Noble, E. P.: Wine and viral diseases (letter).

208

Nord, G. L., Jr. See Jeanloz, R., et al. Nordquist, R. E., et al.: Antibody-induced antigen redistribution and shedding from human breast cancer cells, 366 Norlyn, J. D. See Epstein, E

North American egg parasite successfully controls a different host genus in South

America, A. T. Drooz et al., 390 Norton, T. T., et al.: Loss of Y-cells in the lateral geniculate nucleus of monocularly

deprived tree shrews, 784

Nosé, P. See Lerner, P., et al.

Nuclear waste disposal: can the geologist guarantee isolation?, G. de Marsily et al.,

Nucleon stability: a geochemical test independent of decay mode, J. C. Evans, Jr., and R. I. Steinberg, 989

Nude mouse: a new experimental model for Pneumocystis carinii infection, P. D. Walzer et al., 177

NUMBERS, R. L., Creation by natural law, book review of, 977

Nutrition and IQ (letters), V. H. Denenberg and M. Winick, 1133

0

Ocean Policy Committee: The marine scientific research issue in the Law of the Sea negotiations, 230

O'Dea, R. F. See Zatz, M. Odell, W. D. See Yoshimoto, Y., et al.

Odum, W. E.: book review of Seagrass ecosystems, 1071

Officer, C. B., and J. H. Ryther: Secondary sewage treatment versus ocean outfalls: an assessment, 1056

Ohanian, S. H. See Schlager, S. I.

O'Hare, M.: Science's news writers (letter), 6 Ohnishi, E., et al.: 2-Deoxy- α -ecdysone from ovaries and eggs of the silkworm, Bombyx mori, 66

Oil refinery near the Tai Mahal (letter), L. P. SriVatsa, 1232

Okun, D. A., and D. J. Baumgartner: Drinking water: sources and treatment (letters),

Oldest macroborers, The: Lower Cambrian of Labrador, N. P. James *et al.*, 980 O'Leary, B.: Mining the Apollo and Amor asteroids, 363

Olins, D. E. See Thomas, G. J., Jr., et al. Oliver, J. S. See Dayton, P. K.

Olsen, J. W. See Olsen, S. J.

Olsen, P. E., and P. M. Galton: Triassic-Jurassic tetrapod extinctions: are they real?, 983

Olsen, S. J., and J. W. Olsen: The Chinese wolf, ancestor of New World dogs, 533

Omann, G., and J. R. Lakowicz: Pesticide uptake into membrane measured by fluorescence quenching, 465

OMRAN, A. R., and C. C. STANDLEY (Eds.), Family formation patterns and health, book review of, 1273

One strand equivalent of the Escherichia coli genome is transcribed: complexity and abundance classes of mRNA, W. E. Hahn et al., 582

Organismic evolution, v. GRANT, book review by H. L. Carson, 1272

Oring, L. W. See Emlen, S. T. Orne, E. C. See Evans, F. J., et al. Orne, M. T. See Evans, F. J., et al.

Orski, C. K.: Mass transit versus highways (letter), 7

Orthogenesis of the hominids: an exploration using biorthogonal grids, F. L. Bookstein,

Oscillation and chaos in physiological control systems, M. C. Mackey and L. Glass, 287 Ovarian dynamics in heliconiine butterflies: youth, H. Dunlap-Pianka et al., 487

Ovarian hormone: lack of effect on reproductive structures of female Asian musk shrews, G. L. Dryden and J. N. Anderson,

Overlapping platelets: a diffusion barrier in a teleost swimbladder, D. S. Brown and D. E. Copeland, 383

Owen, D. A. See Leibowitz, H. W. Oxnard, C. E.: book review of The measures

of man, 450

Ozone monitoring with an infrared hetero-dyne radiometer, R. T. Menzies and R. K. Seals, Jr., 1275

Pain relief by electrical stimulation of the central gray matter in humans and its reversal by naloxone, Y. Hosobuchi et al., 183 Pal, R. See Ponnamperuma, C., et al.

Paleoenvironment and human settlement in Japan and Korea, R. Pearson, 1239

Palmer, A. R.: Function of shell sculpture in marine gastropods: hydrodynamic destabilization in Ceratostoma foliatum, 1293

Panessa, B. J. See Feder, R., et al.
Panganamala, R. V. See Huttner, J. J., et al.
Panol, G. See Chick, W. L., et al.
Papamatheakis, J. D. See Schultz, R. M., et

Parkey, R. See Lewis, M., et al. Pasteels, J. M., and D. Daloze: Cardiac glycosides in the defensive secretion of chrysomelid beetles: evidence for their production by the insects, 70 Paul, S. M., and J. Axelrod: Catechol estro-

gens: presence in brain and endocrine tissues, 657

Pavel, S., et al.: Pineal vasotocin: release into cat cerebrospinal fluid by melanocyte-stimulating hormone release-inhibiting factor. Pearson, R.: Paeloenvironment and human settlement in Japan and Korea, 1239

Pellmar, T. C., and W. A. Wilson: Synaptic mechanism of pentylenetetrazole: selectivity for chloride conductance, 912

Pemberton, S. G. See James, N. P., et al. Pendleton, R.: Radioactive waste disposal: an environmental standard (letter), 940

Pepe, L. M. See Segal, S., et al. Pepper, E. See Maxson, L., et al.

Perilla ketone: a potent lung toxin from the mint plant, Perilla frutescens britton, B. J. .Wilson et al., 573 Perna, J. J. See Chick, W. L., et al.

Pesticide uptake into membranes measured by fluorescence quenching, G. Omann and

J. R. Lakowicz, 465
Peters, V. See Baylor, E. R., et al.
Petricciani, J. S. See Milstien, J. B., et al.
Petsko, G. A. See Tsernoglou, D., et al.
Pettijohn, D. E. See Hahn, W. E., et al.

Phase control of neural pacemakers, A. T. Winfree, 761

Phase separation of a protein-water mixture in cold cataract in the young rat lens, T. Tanaka et al., 1010

Phenylketonuria: a new method for the simultaneous determination of plasma phenylala-nine and tryosine, R. Shen and C. W. Abell, 665

Phi bodies: peroxidatic particles that produce crystalloidal cellular inclusions, J. S. Han-

ker and D. K. Romanovicz, 897 Philpotts, J. A. See Andre, C. G., et al. Physiological evidence for habenula as major

link between forebrain and midbrain raphe, R. Y. Wang and G. K. Aghajanian, 89 Pincal vasotocin: release into cat cerebrospi-

nal fluid by melanocyte-stimulating hormone release-inhibiting factor, S. Pavel et al., 179 Pineal, J. P. J., et al.: Temporal lobe aggres-

sion in rats, 1088 Pinsker, H. M., and F. E. Dudek: Bag cell control of egg laying in freely behaving Apl-

ysia, 490 Pious, D., and C. Soderland: HLA variants of cultured human lymphoid cells: evidence for mutational origin and estimation of mu-

tation rate, 769; erratum, 970 Pitts, J. N., Jr., et al.: Enhancement of photochemical smog by N,N'-diethylhydroxylamine in polluted ambient air, 255

Plant-animal mutualism: coevolution with dodo leads to near extinction of plant, S. A. Temple, 885

Plant genetics: increasing crop yield, P. R. Day, 1334

Plasma physics, H. WILHELMSSON (Ed.), book review by H. Lashinsky, 248 Pleistocene volcanism and glacial initiation, J.

R. Bray, 251
Plotsky, P. M., et al.: Liquid chromatographic analysis of endogenous catecholamine released from brain slices, 904

Podleski, T. R. See Adler, K., et al.
Poduslo, S. E., et al.: Antiserums to neurons and to oligodendroglia from mammalian brain, 270

Poe, M. See Burchall, J. J., et al. See also Matthews, D. A., et al. Polarity reversal in nerve-free hydra, B. A.

Marcum et al., 771
Poling, S. M. See Yokoyama, H., et al.
Political economy of science, The, H. Rose
and s. Rose (Eds.), book review of, 246
Pollack, E. D., and V. Liebig; Differentiating

limb tissue affects neurite growth in spinal cord cultures, 899

Polychlorinated biphenyls: penetration into the deep ocean by zooplankton fecal pellet transport, D. L. Elder and S. W. Fowler,

Polymorphism and geographic variation in the feeding behavior of the garter snake Tham-

nophis elegans, S. J. Arnold, 676
Ponnamperuma, C., et al.: Possible surface reactions on Mars: implications for Viking biology results, 455 Porphyrin induction: equivalent effects of

5αH and 5βH steroids in chick embryo liver cells, J. K. Stephens et al., 659

Possible surface reactions on Mars: implications for Viking biology results, C. Pon-

namperuma et al., 455 Post, R. M. See Davis, G. C., et al.

Power with heliostats, A. F. Hildebrandt and L. L. Vant-Hull, 1139

Premenstrual symptoms: a reinterpretation, D. N. Ruble, 291

Prepejchal, W. See Romberg, G. P., et al. Prescott, B. See Thomas, G. J., Jr., et al. Prestridge, E. B. See Holzwarth, G. Price, D. A., and M. J. Greenberg: Structure

of a molluscan cardioexcitatory neuropeptide, 670

Price of physics and chemistry journals, F. F. Clasquin and J. B. Cohen, 432

Primary bioassay of human tumor stem cells, A. W. Hamburger and S. E. Salmon, 461 Prime meridian of Mars and the longitudes of the Viking landers, The, M. E. Davies, 1277

Progressive brain damage accelerates axon sprouting in the adult rat. S. Scheff et al., 795

Prostaglandin research (letter), L. S. Wolfe and C. Pace-Asciak, 210

Proton-induced x-ray emission analysis of single human hair roots, E. C. Henley et

Proveaux, A. T. See Tumlinson, J. H., et al. Psoralen-DNA photoreaction: controlled production of mono- and diadducts with na-nosecond ultraviolet laser pulses, B. H. Johnston et al., 906 Public opinion and energy use (editorial), P.

H. Abelson, 1325

PULLMAN, B. (Ed.), Quantum mechanics of molecular conformations, book review of,

PURCELL, E. F. See BOWERS, J. S. Purine nucleoside phosphorylase deficiency: altered kinetic properties of a mutant enzyme, I. H. Fox et al., 1084

Quantitation of cytoplasmic tubulin by radioimmunoassay, J. L. Morgan et al., 578

Quantitation of dimethylnitrosamine in the whole mouse after biosynthesis in vivo from trace levels of precursors, D. P. Rounbehler et al., 917

Quantum mechanics of molecular conformations, B. PULLMAN (Ed.), book review by J. J. Kaufman, 1072

Quantum statistics and liquid helium-3-heli-um-4 mixtures, E. G. D. Cohen, 11

R

Rabkin, Y. M.; book review of Soviet sociology of science, 856 Radek, C. C. See Amsel, A., et al. Radicalisation of science, The, H. ROSE and S.

ROSE (Eds.), book review by D. Joravsky,

Radioactive waste disposal: an environmental standard (letter), R. Pendleton, 940

Radioactive wastes: a comparison of U.S. military and civilian inventories, H. Krug-mann and F. von Hippel, 883 Rail transit and energy consumption (let'er),

C. A. Lave, 938
Ralston, C. S.: The Bakke case and the fourteenth amendment (*letter*), 514 Ramsay Shaw, B. See Schmitz, K. S.

Ratio of plasma alpha amino-n-butyric acid to leucine as an empirical marker of alcoholism: diagnostic value, M. Y. Morgan et al.,

Ratner, M. A.: book review of The chemical physics of surfaces, 1356

RAVEN, P. H., and T. E. RAVEN, The genus Epilobium (Onagraceae) in Australasia. book review of, 45

RAVEN, T. E. See RAVEN, P. H.

Rawitch, A. B., et al.: Competition of \(\Delta^9 \)-tet-

rahydrocannabinol with estrogen in rat uterine estrogen receptor binding, 1189

Reader, G. G.: book review of Advances in American medicine and Two centuries of American medicine, 750

Recombinant DNA (editorial), P. H. Abelson,

Recombinant DNA research: government regulation (letter), W. Gilbert, 208
Redler, B. H. See Cho-Chung, Y. S.

Refractoriness in female lizard reproduction: a probable circannual clock, H. S. Cuellar and O. Cuellar, 495 Reilly, K. B. See Binkley, S., et al.

Relation between earthquakes, weather, and soil tilt, M. D. Wood and N. E. King, 154 Relative fecundity and parental effort in communally nesting anis, Crotophaga sulci-

munally nesting anis, Crotophaga sulci-rostris, S. L. Vehrencamp, 403 Relaxin: a disulfide homolog of insulin, C. Schwabe and J. K. McDonald, 914 Replogle, W. D. See Fountain, D. W., et al. Research News: amorphous silicon, 851; as-tronomy experiment and self-sufficiency, 1267; biochemical markers, 543; carbon dioxide and climate, 1352; carcinogens in the marketplace, 1268; chalcogenide the marketplace. 1268; chalcogenide glasses, 1068; chitin synthesis inhibitors, 1170; cryptography, 747; drug design and developing new criteria, 36; electron probe microanalysis, 356; gene transfer in mammalian cells, 146; herpes encephalitis and drug treatment, 973; hominoids of the Miocene, 244; human-powered flight, 1171; mathematical games, 546; new P4 laboratories, 1350; science writing awards, 35; solar energy research, 241, 353, 445 (erratum, 545), 650, 745, 971; submicron structures, 448; surface science, 34; synchroton radiation, 148; viral messenger structure,

Resource partitioning in bumble bees: the role of behavioral factors, D. H. Morse, 678

Return of myosin heads to thick filaments after muscle contraction, N. Yagi et al., 685 Revel, J.-P. See Johnson, G., et al.

Reye's syndrome: patient serum alters mitochondrial function and morphology in vitro. J. R. Aprille, 908

Reyman, J. E. See Williamson, R. A. Ridley, W. P., et al.: Biomethylation of toxic elements in the environment, 329

Riebman, J. B. See Binkley, S., et al. Rightmire, G. P.: book review of Where hunters gathered, 359

Rind, D. H. See Balachandran, N. K., et al. Riviere, C. See Guillemin, R., et al. Rizzo, L. See Glass, R. I., et al.

RNA polymerase, R. LOSICK and M. CHAM-BERLIN (Eds.), book review by J. E. Dahlberg, 247

Roberts, A.: book review of Europe's giant accelerator, 1175

ROBERTS, E. H. See DUCKHAM, A.N., et al. Robertson, A., and A. R. Gingle: Axial bending in the early chick embryo by a cyclic adenosine monophosphate source, 1078

Robinson, A. L. (Research News): amorphous silicon, 851; chalcogenide glasses, 1068; human-powered flights, 1171; submicron structures, 448; surface science, 34; synchrotron radiation, 148

Rodieck, R. W., et al.: Metric of color borders, 1195

ders, 1195
Rodkey, L. S. See Morgan, J. L., et al.
Roger, R. See Argyle, E., et al.
Rogers, M. J. See Ting, C. C., et al.
Rohl, A. N. See Hack, J. T., et al.
Romanovicz, D. K. See Hanker, J. S.

Romberg, G. P., et al.: Temperature exposure measured by the use of thermoluminescence, 1364

Romero, J. See Marcum, B. A., et al. ROSE, H., and S. ROSE (Eds.), The political economy of science, *book review* of, 246; The radicalisation of science, *book review* of, 246

ROSE, S. See ROSE, H. Rosen, P. P. See Walzer, P. D., et al. Rosenkranz, P. W. See Staelin, D. H., et al. Ross, R. See Rounbehler, D. P., et al. Ross, W. See Landy, A.

Rossier, J. See Guillemin, R., et al. Rounbehler, D. P., et al.: Quantitation of dimethylnitrosamine in the whole mouse after biosynthesis in vivo from trace levels of

precursors, 917

Rous sarcomas in chickens: enhanced growth coexisting with concomitant immunity. R. A. McBride et al., 1079 Rovner, L. I. See Pinel, J. P. J., et al

Rowe, J.: Interciencia Association focuses on

energy (AAAS), 42

Roy, R.: Basic research productivity (letter). Ruble, D. N.: Premenstrual symptoms: a rein-

terpretation. 291 Ruddle, F. H. See Leinwand, L.

Rutledge, L. T.: American ice cream (letter).

Ryther, J. H. See Officer, C. B.

Saffer, S. See Lewis, M., et al. Sagan, C. See Adler, K., et al. SAHLINS, M., Culture and practical reason, book review of, 553

Saint, W. S., and E. W. Coward, Jr.: Agriculture and behavioral science: emerging ori-

entations, 733
Sakurai, S. See Ohnishi, E., et al.
Salmon, S. E. See Hamburger, A. W.
Sanders, A. F. See Gelernter, H. L., et al.
San Joaquin River misplaced (letter), I. Campbell, 1034

Sar. M., and W. E. Stumpf: Androgen concentration in motor neurons of cranial nerves and spinal cord, 77

Saunders, B. B. See Gorse, R. A., Jr., et al. Saunders, J. C. See Bock, G. R.

Saunders. M. E. See Greenberg, J. H., et al. SAUNDERS. R. S. See MUTCH. T. A., et al. Schaffalitzky de Muckadell, O. B. See Lars-

son, L.-I., et al. Scheff, S., et al.: Progressive brain damage

accelerates axon sprouting in the adult rat.

Scheinberg, I. H. See Stockert, R. J., et al. Scheraga, H. A. See Adler, K., et al. Schierman, L. W. See McBride, R. A., et al. SCHILD, G. C. See STUART-HARRIS, C. H.

Schlager, S. I., and S. H. Ohanian: Correlation between lipid synthesis in tumor cells and their sensitivity to humoral immune attack. 773

Schlesinger, R. W.: book review of Influenza and Influenza, 43

Schmandt, J.: Federal reorganization: science and technology (editorial), 425

Schmitz, K. S., and B. Ramsay Shaw: Hydrodynamic evidence in support of spacer regions in chromatin, 661

Schmucker, D. L., et al.: Age-related changes in the hepatic endoplasmic reticulum: a quantitative analysis, 1005

SCHNEIDER, D. See BERL, S., et al. Schnelle, V. See Walzer, P. D., et al. Schroth, M. N. See Sing, V. O.

Schulte-Wissermann, H. See Horowitz, S., et

Schultz, G. S. See Rawitch, A. B., et al. Schultz, J. S.: Carrier-mediated photodif-

fusion membranes, 1177 Schultz, R. M., et al.: Interferon: an inducer of macrophage activation by polyanions, 674

Schwabe, C., and J. K. McDonald: Relaxin: a

disulfide homolog of insulin, 914
Schwartz, W. J., and H. Gainer: Suprachiasmatic nucleus: use of ¹⁴C-labeled deoxyglucose uptake as a functional marker,

Sciama, D. W.: book review of The first three minutes, 752

Science's news writers (letter), M. O'Hare, 6 Seagrass ecosystems, c. P. MC ROY and C. HELFFERICH (Eds.), book review by W. E. Odum, 1071

Seals, R. K., Jr. See Menzies, R. T.

Searleman, J. E. See Gelernter, H. L., et al. Seawater-based crop production: a feasibility study, E. Epstein and J. D. Norlyn, 249

Secondary sewage treatment versus ocean outfalls: an assessment, C. B. Officer and J. H. Ryther, 1056

Secondary structure of histones and DNA in chromatin, G. J. Thomas, Jr., et al., 385

Sedat, J. See Feder, R., et al. Seegmiller, J. E. See Hershfield, M. S., et al. Seeman. P. See Curran. M.

Segal, S., et al.: Transport interaction of cystine and dibasic amino acids in renal brush border vesicles, 169

SELBY, P. (Ed.), Influenza, book review of, 43 Selikoff, I. J. See Hack, J. T., et al. Sentence length (letter), R. J. Huxtable, 208

Setton, C. See Friedland, J., et al. Seveso: "encouraging evidence"? (letter), P. Strigini and A. Torriani, 1034 Sexual interaction in plants, H. VAN DEN

ENDE, book review by G. van den Ende and H. F. Linskens, 151

Shannon, D. C., and D. Kelly: Impaired regulation of alveolar ventilation and the sudden infant death syndrome, 367

Shansky, M. S. See Chino, Y. M., et al. Shapley, D. (News and Comment): China after Mao, 739; Clinch River breeder, 350; crime computer project, 138; game theorist Morgenstern dies, 649 (erratum, 850); [Vincent E.] McKelvey ousted as Geological Survey director, 1264; ocean scientists and Law of the Sea, 645; oceanography research office at Bay Saint Louis, 1164; Office of Technology Assessment, 1164, 1348; reactor safety and Rasmussen report, 29: SRI International given a "golden fleece" award, 1165; telecommunications eavesdropping by National Security Agency alleged, 1061

and G. B. Kolata (News and Com-

ment): cryptology, 1345
Sharma, H. M. See Huttner, J. J., et al.
SHAW, E. See GOLDSMITH, M.
Shen, R., and C. W. Abell: Phenylketonuria:
a new method for the simultaneous determination of plasma phenylalanine and tyrosire, 665

Sherlock, S. See Morgan, M. Y., et al. Sherman. P. W.: Nepotism and the evolution of alarm calls, 1246

Sherman, S. M. See Norton, T. T., et al. Shimoyama, A. See Ponnamperuma, C., et

Shinkman, P. G., and C. J. Bruce: Binocular differences in cortical receptive fields of kittens after rotationally disparate binocular experience, 285

Shivers, C. A., and B. S. Dunbar: Autoantibodies to zona pellucida: a possible cause for infertility in women, 1082

Shock-produced olivine glass: first observa-tion, R. Jeanloz et al., 457 Shoreline forms and shoreline dynamics, R.

Dolan et al., 49 Shorey, H. H. See Bone, L. W

Shucard, D. W., et al.: Auditory evoked potentials as probes of hemispheric differences in cognitive processing, 1295 Shucard, J. L. See Shucard, D. W., et al.

Siamese cats: abnormal responses of retinal ganglion cells, Y. M. Chino et al., 173

Sibony, S. See Glass, R. I., et al. Siddiqui, W. A.: An effective immunization of experimental monkeys against a human malaria parasite, *Plasmodium falciparum*, 388 Sigler, P. B., et al.: Cholera toxin crystals

suitable for x-ray diffraction, 1277 Silverstein, E. See Friedland, J., et al. SINCLAIR, A. R. E., The African buffalo, book

review of, 857 Sing, V. O., and M. N. Schroth: Bacteriaplant cell surface interactions: active immobilization of saprophytic bacteria in plant leaves, 759

Sklar, J., et al.: The U.S. birthrate (letters),

Skoultchi, A. I. See Hu, H.-Y. Y., et al. Smith, H. See Glass, R. I., et al.

Smith, J. P. See Pitts, J. N., Jr., et al.

Smith, K. H. See D'Aoust, B. G., et al. Smith, M. O., et al.: Cerebral lateralization of haptic perception: interaction of responses to Braille and music reveals a functional basis, 689

Smith, R. J. (News and Comment): Federal Trade Commission and medical ethics. 1346; pesticide safety data accessible to public, 1346; RANN reorganization, 1347

Smith, S. V., and J. T. Harrison: Calcium carbonate production of the mare incognitum, the upper windward reef slope, at Enewetak Atoll, 556

Snyder, F. F. See Hershfield, M. S., et al. Snyder, S. H. See Creese, I., et al.

Social anthropology and medicine, J. B. LOUDON (Ed.), book review by D. Landy,

Social communication in canids: evidence for the evolution of a stereotyped mammalian display, M. Bekoff, 1097 Sociobiology and scientific debate (letter), M.

E. Clark, 822

Sociobiology of rape in mallards (Anas platyrhynchos): responses of the mated male, D. P. Barash, 788

Soderblom, L. A. See Andre, C. G., et al. Soderland, C. See Pious, D. Soil and oil (editorial), C. H. M. van Bavel,

Soil deterioration and the growing world demand for food, R. A. Brink et al., 625; erra-

tum, 970 Solar proton event: influence on stratospheric

ozone, D. F. Heath et al., 886 Solid state physics, N. W. ASHCROFT and N. D. MERMIN, book review by H. Ehrenreich,

Somali Current: recent measurements during the southwest monsoon, J. G. Bruce, 51

Southam, J. R. See Davies, T. A., et al.
Soviet sociology of science, L. L. LUBRANO, book review by Y. M. Rabkin, 856
Species turnover rates on islands: dependence on census interval, J. M. Diamond and R. M. May, 266

Specific high-affinity binding macromolecule for 1,25-dihydroxyvitamin D₃ in fetal bone. A. B. E. Kream et al., 1086

Sperm autoantibodies in vasectomized rats of different inbred strains, P. E. Bigazzi et al., 1282

Spigarelli, S. A. See Romberg, G. P., et al.

Spigaretti, S. A. See Romberg, G. P., et al.
Spiller, E. See Feder, R., et al.
Spinning rotation of ash and tulip tree samaras. The, C. W. McCutchen, 691
Spitzer, F. See Adler, K., et al.
Spooner, B. S. See Morgan, J. L., et al.
Spritzer, G. A. See Gelernter, H. L., et al.
SriVatsa, L. P.: Oil refinery near the Taj Mahal (detta), 1732. hal (letter), 1232

Staelin, D. H., et al.: Microwave spectroscopic imagery of the earth, 991

STANDLEY, C. C. See OMRAN, A. R. Stavric, B. See Arnold, D. L., et al. Stawiski, M. A. See Hammerström, S., et al.

STEBBINS, L. See DOBZHANSKY, TH., et al. Stehl, R. H., and L. L. Lamparski: Combustion of several 2.4,5-trichlorophenoxy compounds: formation of 2.3,7,8-tetrachlorodibenzo-p-dioxin, 1008

Steinberg, R. I. See Evans, J. C., Jr. Stenn, F. F., et al.: Biochemical identification of homogentisic acid pigment in an ochro-

notic Egyptian mummy, 566 Stephen, E. L., et al.: Swine influenza virus vaccine: potentiation of antibody responses in rhesus monkeys, 1289 Stephens, J. K., et al.: Porphyrin induction:

Stephens, J. K., et al.: Porphyrin induction: equivalent effects of 5αH and 5βH steroids in chick embryo liver cells, 659
 STEPHENS, N. L. (Ed.), The biochemistry of smooth muscle, book review of, 858

Stereopsis in the falcon, R. Fox et al., 79 Sterling, K., et al.: Thyroid hormone action:

the mitochondrial pathway, 996 Stimulation by immune complexes of mucus release from goblet cells of the rat small intestine, W. A. Walker et al., 370

Stimulation of in vitro translation of messenger RNA by actinomycin D and cordyce-pin, L. Leinwand and F. H. Ruddle, 381

Stockert, R. J., et al.: Hepatic binding protein: the protective role of its sialic acid res-

idues, 667

Stoeckenius, W. See Fisher, K. A. Stokely, E. See Lewis, M., et al. Stoltz, D. R. See Arnold, D. L., et al.
Stone circles of the British Isles, The, A.
BURI, book review by B. Wailes, 360

Størmer, L.: Arthropod invasion of land during late Silurian and Devonian times, 1362

Ing late Shurian and Devonian times, 1302 Strategy for the chemotherapy of infectious disease, S. S. Cohen, 431 Straub, K. See Gamper, H. B., et al. Strigini, P., and A. Torriani: Seveso: "en-couraging evidence"? (letter), 1034 Strong, D. R., Jr.: book review of Biochemi-

cal aspects of plant-parasite relationships,

Structure and evolution of close binary systems, P. EGGLETON et al. (Eds.), book review by R. P. Kraft, 449; erratum, 542

Structure of a molluscan cardioexcitatory neuropeptide, D. A. Price and M. J. Greenberg, 670

Stuart-Alexander, D. E. See Mark, R. K. STUART-HARRIS, C. H., and G. C. SCHILD, Influenza, book review of, 43

Stumpf, W. E. See Sar, M. Sun, T.-T. See Chen, L. B., et al.

Suprachiasmatic nuclear lesions do not abolish food-shifted circadian adrenal and temperature rhythmicity, D. T. Krieger et al., 398

Suprachiasmatic nucleus: use of 14C-labeled deoxyglucose uptake as a functional marker, W. J. Schwartz and H. Gainer, 1089

Surgical removal of adipose tissue alters feeding behavior and the development of obesity in rats, I. M. Faust *et al.*, 393
Sussmann, H. J.: Catastrophe theory: a skep-

tic (letter), 820

Sutherland, G. R.: Fragile sites on human chromosomes: demonstration of their dependence on the type of tissue culture medium, 265

Suzuki, K. See Ikemoto, S., et al.
Swanson, H. T. See D'Aoust, B. G., et al.
Swartz, M. J.: book review of Culture and practical reasons, 553

Sweedler, M. E. See Adler, K., et al. Swine influenza virus vaccine: potentiation of antibody responses in rhesus monkeys, E.

L. Stephen et al., 1289 Sympatric speciation based on allelic changes at three loci: evidence from natural populations in two habitats, C. A. Tauber and M. J. Tauber, 1298

Synaptic mechanism of pentylenetetrazole: selectivity for chloride conductance, T. C.

Pelluar and W. A. Wilson, 912

Synergism between trimethoprim and sulfamethoxazole, J. J. Burchall et al., 1300 Szamier, R. B. See Edwards, R. B.

T

Taintor, R. R. See Hibbs, J. B., Jr., et al. Tanaka, T., et al.: Phase separation of a pro-tein-water mixture in cold cataract in the young rat lens, 1010

Tang, L. C. See Cotzias, G. C. Tansley, B. W. See Rodieck, R. W., et al.

Tashian, R. E. See Kendall, A. G. Tauber, C. A., et al.: Two genes control sea-

sonal isolation in sibling species, 592 Tauber, C. A., and M. J. Tauber: Sympatric speciation based on allelic changes at three loci: evidence from natural populations in two habitats, 1298

Tauber, M. J. See Tauber, C. A. See also
 Tauber, C. A., et al.
 Taxonomists wanted (letter), C. W. Beck, 620

Taylor, A. N. See Urca, G., et al. Taylor, M. E.: book review of Evolution and

morphology of the Trilobita, Trilobitoidea and Merostomata, 653

Technology topic of Pacific Science Association meeting (AAAS), A. H. Livermore, 974 Temperature exposure measured by the use of thermoluminescence, G. P. Romberg et al., 1364

Temple, S. A.: Plant-animal mutualism: coevolution with dodo leads to near extinction of plant, 885

Temporal control of urate oxidase activity in Drosophila: evidence of an autonomous timer in malpighian tubules, T. B. Friedman and D. H. Johnson, 477

Temporal lobe aggression in rats, J. P. J. Pinel et al., 1088

Terzian, Y. See Adler, K., et al. Then, R. See Burchall, J. J., et al.

Theory of simple liquids, J. P. HANSEN and I. R. MC DONALD, book review by B. J. Alder, 150

Theory of turbulent plasma, v. N. TSYTOVICH, book review by J. E. Walsh, 361

Thermoluminescent determination of prehistoric heat treatment of chert artifacts, C. L. Melcher and D. W. Zimmerman, 1359 Thomas, D. G. See Shucard, D. W., et al.

Thomas, G. J., Jr., et al.: Secondary structure of histones and DNA in chromatin, 385 Thompson, R. F. See Berger, T. W.

Three hypolipidemic drugs increase hepatic palmitoyl-coenzyme A oxidation in the rat, P. B. Lazarow, 580 THRELFALL, D. R. See FRIEND, J. Thyroid hormone action: the mitochondrial

pathway, K. Sterling et al., 996 Timekeeping by the pineal gland, S. Binkley

et al., 1181 Timmer, C. P.: book review of Food production and consumption, 1354

Ting, C. C., et al.: Host control of the tumor growth, 571

growth, 5/1
Tobey, R. C.: book review of Creation by natural laws, 977
Tomita, K. See Ikemoto, S., et al.
Topalian, J. See Feder, R., et al.
Topological asymmetry of phospholipids in

membranes, L. D. Bergelson and L. I. Barsukov, 224

Torriani, A. See Strigini, P. TOSI, M. P. See MARCH, N.H.

Toxicity of mild prenatal carbon monoxide exposure, L. D. Fechter and Z. Annau, 680 Transferring solar technology (letter), J. W. Howe and W. E. Knowland, 1034

Transmitter release during repetitive stimulation: selective changes produced by Sr²⁺ and Ba²⁺, J. E. Zengel and K. L. Magleby,

Transmutation products may influence radiotracer diffusion rates in an ionic solid, G. C. T. Wei and B. J. Wuensch, 157

Transport interaction of cystine and dibasic amino acids in renal brush border vesicles, S. Segal et al., 169

Tree rings and climate, H. C. FRITTS, book review by T. Webb III, 361

Treisman, M.: Motion sickness: an evolutionary hypothesis, 493 Treit, D. See Pinel, J. P. J., et al.

Triassic-Jurassic tetrapod extinctions: are they real? P. E. Olsen and P. M. Galton,

TRIGGLE, C. R. See TRIGGLE, D. J.

TRIGGLE, D. J. and C. R. TRIGGLE, Chemical pharmacology of the synapse, book review of, 1175

Tris ban, The (letter), R. H. Harris, 1132 Tris controversy, The (editorial), P. H. Abelson, 113

Tsai, S. C. See Ting, C. C., et al. Tsernoglou, D., et al.: Molecular graphics: application to the structure determination of a snake venom neurotoxin, 1378 TSYTOVICH, V. N., Theory of turbulent

plasma, book review of, 361

Tuchman, W. L.: Computer security and IBM (letter), 938 Tumlinson, J. H., et al.: Identification of the female Japanese beetle sex pheromone: inhibition of male response by an enantiomer, Tung, A. S.-C. See Gamper, H. B., et al. Two centuries of American medicine, J. BORDLEY, III, and A. M. HARVEY, book review by G. G. Reader, 750

Two genes control seasonal lubrication isolation in sibling species, C. A. Tauber et al.,

U

Ultrasound emission in infant rats as an indicant of arousal during appetitive learning and extinction, A. Amsel et al., 786

Unconventional viruses and the origin and disappearance of kuru, D. C. Gajdusek, 943 U.S. Birthrate, The (letters), J. Sklar et al., 108

Urca, G., et al.: Morphine and enkephalin: analgesic and epileptic properties, 83 Urrutia, J. J. See Glass, R. I., et al.

V

Vale, W. See Guillemin, R., et al. VALENTINE, J. W. See DOBZHANSKY, TH., et

van Bavel, C. H. M.: Soil and oil (editorial),

Van Brunt, J. See Harold, F. M. van den Ende, G., and H. F. Linskens: book review of Sexual interaction in plants, 151 VAN DEN ENDE, H., Sexual interaction in

plants, book review of, 151 Vander, A. J. See Malvin, R. L., et al.

van de Walle, E.: book review of The modern

van de Walle, E.: book review of the modern rise of population, 652 van Kammen, D. P. See Davis, G. C., et al. Van Ness, J. See Hahn, W. E., et al. Vant-Hull, L. L. See Hildebrandt, A. F. Vardaris, R. M. See Rawitch, A. B., et al. Vargo, T. See Guillemin, R., et al.

Vasoactive intestinal polypeptide occurs in nerves of the female genitourinary tract, L.-I. Larsson *et al.*, 1374 Vehar, G. A., and E. W. Davie: Formation of

a serine enzyme in the presence of bovine factor VIII (antihemophilic factor) and thrombin, 374

Vehrencamp, S. L.: Relative fecundity and parental effort in communally nesting anis,

Crotophaga sulcirostris, 403 Veis, A. See Stenn, F. F., et al.

Venous gas bubbles: production by transient, deep isobaric counterdiffusion of helium against nitrogen, B. G. D'Aoust et al., 889 Vertebrate eye lens, The, H. Bloemendal, 127 Vincent, L. See Dolan, R., et al.

Viral integration and excision: structure of the lambda att sites, A. Landy and W. Ross,

Visible scientists, The, R. GOODELL, book review by G. Basalla, 977

Visual input to the visuomotor mechanisms of the monkey's parietal lobe, T. C. T. Yin and V. B. Mountcastle, 1381

Visual sensitivity: significant within-species variations in a nonhuman primate, G. H. Ja-

Vitz, R. C. See Weiser, H., et al.

Volcanic activity and great earthquakes at convergent plate margins, M. J. Carr, 655 von Hippel, F. See Krugmann, H. Voorhees, J. J. See Hammarström, S., et al. Voyager missions, The (editorial), P. H. Abelien, 1030

Abelson, 1039

W

Wade, N. (News and Comment): B-1 bomber canceled, 536; censorship of issues of Science, 646; climatologists and predictions, 647; gene splicing, 348; ice cream and the Food and Drug Aministration, 844; insulin team and NIH Guidelines, 1342; [Thomas S.] Kuhn, revolutionary theorist of science, 143; sex banned from outer space, 1163; The Zetetic, 646, 1344

Wailes, B.: book review of The stone circles of the British Isles, 360

Walker, D. A.: High-frequency Pn phases observed in the Pacific at great distances, 257 Walker, J. R. See Milstien, J. B., et al.

Walker, W. A., et al .: Stimulation by immune complexes of mucus release from goblet

cells of the rat small intestine, 370 Walsh, J. (News and Comment); Agent Orvalsh, J. (News and Comment); Agent Orange, 966; Bakke case and minority admissions, 25; Biological Sciences Curriculum Study "wins," 234; bowhead whale and the Eskimo, 847; Executive Office reorganization, 442; export control of U.S. trade and technology, 1261; foreign medical students, 346; Institute of Electrical and Electronic Engineers, 741; Mosher to head House Science and Technology Committee staff, 967; Press and Office of Science and Technology Policy, 538; science education directorate at the National Science Foundation, 233; Seveso and the dioxin wasteland, 1064

Walsh, J. E.: book review of Theory of turbulent plasma, 361

Walsh, R. N. See Cummins, R. A., et al. Walzer, P. D., et al.: Nude mouse: a new experimental model for Pneumocystis carinii

infection, 177
Wang, R. Y., and G. K. Aghajanian: Physiological evidence for habenula as major link between forebrain and midbrain raphe, 89 Wasson, J. T. See Bild, R. W

Watanabe, D. H. See McBride, R. A., et al. Water-to-air transfer of virus, E. R. Baylor et al., 763

Waters, J. W. See Staelin, D. H., et al.
Weatherley, A. H., and B. M. G. Cogger:
Fish culture: problems and prospects, 427
Webb, T., III: book review of Tree rings and

climate, 361 Wei, G. C. T., and B. J. Wuensch; Comparison of radioactive and stable TI+ diffusion in potassium chloride: demonstration of a transmutation effect, 159; Transmutation products may influence radiotracer diffusion rates in an ionic solid, 157

Weigand, R. J. See Stenn, F. F., et al. WEILER, R. See ZETTLER, F.

Weinberg, J. B. See Hibbs, J. B., Jr., et al. WEINBERG, S.. The first three minutes, book review of, 752

Weiser, H., et al.: Detection of Lyman α emission from the saturnian disk and from the ring system. 755

Wentorf, R. H., Jr. See Kasper, J. S.

Werner, M. W., et al.: Infrared studies of star formation, 723

West, J. E. See Adler, K., et al.

Westman, W. E.: How much are nature's services worth?, 960

WHELAN, J. See EGGLETON, P., et al. WHELAN, J. 36e EGGLETON, F., et al.
Where hunters gathered, H. J. DEACON, book
review by G. P. Rightmire, 359
White, J. W., Jr. See Doner, L. W.
White, R. See D'Aoust, B. G., et al.
White, R. K., and R. L. Goen: Cogeneration

in West Germany (letter), 618 Whitham, T. G.: Coevolution of foraging in Bombus and nectar dispensing in Chilopsis:

a last dreg theory, 593 Whitney, D. D.: Is small always beautiful? (letter), 423

Whittemore, A. D. See Chick, W. L., et al. Wick, M. M., et al .: L-dopa: selective toxicity

for melanoma cells in vitro, 468 Widom, B. See Adler, K., et al. Wightman, R. M. See Plotsky, P. M., et al.

WILHELMSSON, H. (Ed.), Plasma physics, book review of, 248

Willerson, J. See Lewis, M., et al.
Williams, C. M. See Cherbas, P., et al.
Williams, D. F.: Electrochemical growth of organic charge-transfer complexes, 1194

Williams, M. See Matthews, D. A., et al.
Williamson, R. A., and J. E. Reyman: Archeoastronomy at Pueblo Bonito (letters),

Wilson, B. J., et al.: Perilla ketone: a potent lung toxin from the mint plant, Perilla frutescens britton, 573

Wilson, W. A. See Pellmar, T. C Wine and viral diseases (letter), E. P. Noble,

Winfree, A. T.: Phase control of neural pace-makers. 761Winick, M. See Denenberg, V. H.

Winstead, J. T. See Couch, J. A., et al. Witkovsky, P.: book review of Neural prin-

ciples in vision, 43 Wolfe, L. S., and C. Pace-Asciak: Prostaglan-

din research (letter), 210 Wolfsen, A. R. See Yoshimoto, Y., et al. Wong, G. L., et al.: 1,25 Dihydroxycholecalciferol and parathormone: effects on isolated osteoclast-like and osteoblast-like cells, 663

Wood, J. M. See Ridley, W. P., et al. Wood, M. D., and N. E. King: Relation between earthquakes, weather, and soil tilt, Woodland, H.: book review of Gene activity in early development, 978

Woodward, J. A., and M. J. Goldstein: Communication deviance in the families of schizophrenics: a comment on the misuse of analysis of covariance, 1096

wootton. R. J., The biology of the stick-lebacks, book review of, 451

Worsley, T. R. See Davies, T. A., et al. WRAY, J. L., Calcareous algae, book review of, 44

Wu. M. See Walker, W. A., et al.

Wuensch, B. J. See Wei, G. C. T. Wurtman, R. J., and W. M. Elsasser: Changing norms: before and after Kuhn (letters).

Wyatt, R. J. See Davis, G. C., et al.

X-Z

Xuong, N. See Matthews, D. A., et al. Yagi, N., et al.: Return of myosin heads to thick filaments after muscle contraction, 685

Yamada, M. See Ponnamperuma, C., et al.

Yamada, S. See Kream, B. E., et al. Yang, W. K. See Fountain, D. W., et al. Yin, T. C. T., and V. B. Mountcastle: Visual

input to the visuomotor mechanisms of the monkey's parietal lobe, 1381

YODER, H. S., JR., Generation of basaltic magma, book review of, 554 Yokoyama, H., et al.: Chemical bioinduction

of rubber in guayule plant, 1076
Yoshimoto, Y., et al.: Human chorionic gonadotropin-like substance in nonendocrine tissues of normal subjects, 575 Young, R. C. See Myers, C. E., et al. Zadunaisky, Z. A. See Feder, R., et al.

Zatz, M., and R. F. O'Dea: Efflux of cyclic nucleotides from rat pineal: release of guanosine 3',5'-monophosphate from sympathetic nerve endings, 174

Zellner, B. See Gradie, J. Zengel, J. E., and K. L. Magleby: Transmitter release during repetitive stimulation: selective changes produced by Sr2+ Ba2+, 67

ZETTLER, F., and R. WEILER (Eds.), Neural principles in vision, book review of, 43 Zigmond, R. E.: book review of Chemical

pharmacology of the synapse, 1175 Zimmerman, D. W. See Melcher, C. L.

Instructions for Contributors

The Editors of Science

Manuscripts submitted to Science for consideration for publication can be handled expeditiously if they are prepared in the form described in these instructions.

Submit an original and two duplicates of each manuscript. With the manuscript send a letter of transmittal giving (i) the name(s) of the author(s); (ii) the title of the paper and a one- or two-sentence statement of its main point; (iii) the name, address, and field of interest of four to six persons in North America but outside your institution who you think are qualified to act as referees for your paper; (iv) the names of colleagues who have reviewed your paper for you; (v) the field(s) of interest of readers who you anticipate will wish to read your paper.

Editorial Policies

All papers submitted are considered for publication. The author's membership or lack of membership in the AAAS is not a factor in selection. Papers are accepted with the understanding that they have not been published, submitted, or accepted for publication elsewhere. Authors will usually be notified of acceptance, rejection, or need for revision in 4 to 6 weeks (Reports) or 6 to 10 weeks (Articles).

Types of papers. Five types of signed papers are published: Articles, Reports, Letters, Technical Comments, and Book Reviews. Familiarize yourself with the general form of the type of paper you wish to submit by looking over a recent issue of the journal, and then follow the instructions for that type of paper.

Reviews. Almost all Articles, Reports, and Technical Comments, whether solicited or not, are sent to two or more outside referees for evaluation of their significance and soundness. Forms showing some of the criteria reviewers are expected to consider are available on request.

Editing. Papers are edited to improve the effectiveness of communication between the author and his readers. The most important goal is to eliminate ambiguities. In addition, improvement of sentence structure often permits readers to absorb

salient ideas quickly. When editing is extensive, with consequent danger of altered meanings, papers are returned to the author for correction and approval before type is set. Authors are free to make additional changes at this stage.

Proofs. One set of galley proofs or an equivalent is provided for each paper. Keep alterations to a minimum, and mark them only on the galley, not on the manuscript. Extensive alterations may delay publication by 2 to 4 weeks.

Reprints. An order blank for reprints accompanies proofs.

Writing Papers

Organize your material carefully, putting the news of your finding or a statement of the problem first, supporting details and arguments second. Make sure that the significance of your work will be apparent to readers outside your field, even if you feel you are explaining too much to your colleagues. Present each step in terms of the purpose it serves in supporting your finding or solving the problem. Avoid chronological steps, for the purpose of the steps may not be clear to the reader until he finishes reading the paper.

Provide enough details of method and equipment so that another worker can repeat your work, but omit minute and comprehensive details which are generally known or which can be covered by citation of another paper. Use metric units of measure. If measurements were made in English units, give metric equivalents.

Avoid specialized laboratory jargon and abbreviations, but use technical terms as necessary, defining those likely to be known only in your field. Readers will skip a paper they do not understand. They should not be expected to consult a technical dictionary.

Choose the active voice more often than you choose the passive, for the passive voice usually requires more words and often obscures the agent of action. Use first person, not third; do not use first person plural when singular is appropriate. Use a good general style manual, not a specialty

style manual. The University of Chicago style manual, the style manual of the American Institute of Physics, and the Style Manual for Biological Journals, among others, are appropriate.

Manuscripts

Prepare your manuscript in the form used by Science. Use bond paper for the first copy. Submit two duplicates. Doublespace title, abstracts, text, signature, address, references (including the lines of a single reference), figure legends, and tables (including titles, column headings, body, and footnotes). Do not use single spacing anywhere. Put the name of the first author and the page number in the upper righthand corner of every page.

Paging. Use a separate page for the title; number it page 1. Begin each major section-text, references and notes, and figure legends-on a new sheet. Put each table on a separate sheet. Place figure legends and tables after the references.

Title. Begin the title with a word useful in indexing and information retrieval (not "Effect" or "New").

References and Notes. Number all references to the literature, footnotes, and acknowledgments in a single sequence in the order in which they are cited in the text. Gather all acknowledgments into a single citation, and keep them short ("I thank," not "I wish to thank"). Cite all references and notes but do not cite them in titles or abstracts. Cite several under one number when feasible. Use Bibliographic Guide for Editors & Authors with the few suggested revisions in International List of Periodical Title Word Abbreviations for abbreviations of journal names. If the journal is not listed there, provide the full name. Use the following forms:

H. Smith, Am. J. Physiol. 98, 279 (1931). F. Dachille and R. Roy, Modern Very Lournal Book: F. Dachille and R. Roy, Modern Very High Pressure Techniques (Butterworth, London, 1961), pp. 163–180. F. Dachille and R. Roy, in Reactivity of Solids, J. H. de Boer, Ed. (Elsevier, Am-sterdam, 1960), p. 502.

Chapter:

Illustrations. Submit three copies of each diagram, graph, map, or photograph. Cite all illustrations in the text and provide a brief legend, to be set in type, for each. Do not combine line drawings and photographs in one illustration. Do not incorporate the legend in the figure itself. Use India ink and heavy white paper or blue-lined coordinate paper for line drawings and graphs. Use heavier lines for curves than you use for axes. Place labels parallel to the axes, using initial capital and lowercase letters; put units of measurement in parentheses after the label-for example, Length (m). Plan your figures for the smallest possible printed size consistent with clarity.

Photographs should have a glossy finish, with sharp contrast between black and white areas. Indicate magnification with a scale line on the photograph.

Tables. Type each table on a separate sheet, number it with an Arabic numeral, give it a title, and cite it in the text. Double space throughout. Give each column a heading. Indicate units of measure in parentheses in the heading for each column. Do not change the unit of measure within a column. Do not use vertical rules. Do not use horizontal rules other than those in the heading and at the bottom. A column containing data readily calculated from data given in other columns can usually be omitted; if such a column provides essential data, the columns containing the other data can usually be omitted.

Plan your table for small size. A onecolumn table may be up to 42 characters wide. Count characters by counting the widest entry in each table column (whether in the body or the heading) and allow three characters for spaces between table columns. A two-column table may be 90 characters wide.

acters wide.

Equations and formulas. Use quadruple spacing around all equations and formulas that are to be set off from the text. Most should be set off. Start them at the left margin. Use the solidus for simple fractions, adding the necessary parentheses. But if braces and brackets are required, use built-up fractions. Identify handwritten symbols in the margin, and give the meaning of all symbols and variables in the text immediately after the equation.

Articles

Articles, both solicited and unsolicited, may range in length from 2000 to 5000 words (up to 20 manuscript pages). Write them clearly in reasonably nontechnical language. Provide a title of one or two lines of up to 26 characters per line and a subtitle consisting of a complete sentence in two lines with a character count between 95 and 105 for the sentence (spaces between words count as one character each). Do not break words at the ends of lines. Write a brief author note, giving your posi-

tion and address. Do not include acknowledgments. Place title, subtitle, and author note on page 1. Begin the text on page 2.

Insert subheads at appropriate places in the text to mark your main ideas. The set of subheads should show that your ideas are presented in a logical order. Keep subheads short—up to 35 characters and spaces.

Provide a summary at the end.

Do not submit more than one !!iustration (table or figure) for each four manuscript pages unless you have planned carefully for grouping. With such planning many illustrations can be accommodated in the article. Consult the editorial office for help in planning.

Reports

Short reports of new research results may vary in length from one to seven double-spaced manuscript pages of text, including the bibliography. Short papers receive preferred treatment. Limit illustrative material (both tables and figures) to two items, occupying a total area of no more than half of a published page (30 square inches). A research report should have news value for the scientific community or be of unusual interest to the specialist or of broad interest because of its interdisciplinary nature. It should contain solid research results or reliable theoretical calculations. Speculation should be limited and is permissible only when accompanied by solid work.

Title. Begin the title with an important word (preferably a noun) that identifies your subject. The title may be a conventional one (composed primarily of nouns and adjectives), a sentence (containing a verb), or a structure with a colon (Jupiter: Its Captured Satellites). Limit it to two lines of complete words of no more than 55 characters per line (spaces between words count as one character each). Do not use abbreviations. Type the title in the middle of page 1.

Abstract. Provide an abstract of 45 to 55 words on page 2. The abstract should amplify the title but should not repeat it or phrases in it. Qualifying words for terms used in the title may be used. Tell the results of the work, but not in terms such as

"____ was found," "is described," or "is presented."

Text. Begin the text on page 3. Put the news first. Do not refer to unpublished work or discuss your plans for further work. If your paper is a short report of work covered in a longer paper to be published in a specialty journal, you may refer to this paper if it has been accepted. Name the journal. If the manuscript has not been accepted, refer to it as "in preparation." Omit references to private communications. Do not use subheads.

Signature. List the authors on the last page of the text and give a simple mailing address.

Received dates. Each report will be dated the day an acceptable version is received in the editorial office.

Letters

The Letters section provides a forum for discussion of matters of general interest to scientists. Letters are judged only on clarity of expression and interest. Keep them short and to the point; the preferred length is 250 words. The editors frequently shorten letters.

Technical Comments

Letters concerning technical papers in Science are published as Technical Comments at the end of the Reports section. They may add information or point out deficiencies. Reviews are obtained before acceptance.

Book Reviews

The selection of books to be reviewed is made by the editors with the help of advisers in the various specialties; arrangements are then made with reviewers. A sheet of instructions accompanies each book when it is sent to the reviewer.

Cover Photographs

Particularly good photographs that are suitable for use on the cover are desired.

SCIENCE

Index to Volume 198 October-December 1977

Editorial Board

RICHARD E. BALZHISER JAMES F. CROW WARD GOODENOUGH CLIFFORD GROBSTEIN HERBERT S. GUTCWSKY N. BRUCE HANNAY DONALD KENNEDY NEIL E. MILLER
EDWARD NEY
FRANK W. PUTNAM
MAXINE F. SINGER
RAYMOND H. THOMPSON
PAUL E. WAGGONER
F. KARL WILLENBROCK

Editorial Staff

WILLIAM D. CAREY Publisher

HANS LANDSBERG

Hans Nussbaum Business Manager

PHILIP H. ABELSON Editor

EARL J. SCHERAGO, Advertising Director

Published by the

American Association for the Advancement of Science

1515 Massachusetts Avenue, NW, Washington, D.C. 20005

Printed in Richmond, Virginia, by William Byrd Press

Copyright 1977 by the American Association for the Advancement of Science



Issue No.	Date	Pages	Issue No.	Date	Pages
4312	7 October	1-92	4318	18 November	657-772
4313	14 October	93-240	4319	25 November	773-870
4314	21 October	241-340	4320	2 December	871-972
4315	28 October	341-440	4321	9 December	973-1088
4316	4 November	441-540	4322	16 December	1089-1196
4317	11 November	541-656	4323	23 December	1197-1300

The names of authors of books reviewed are in SMALL CAPITALS.

Abelson, P. H. (editorials): How much more oil?, 451; The leadership of the Geological Survey, 11

Acquiring new information while retaining old

ethics, V. Herbert, 690 Adams, S. M.: book review of Estuarine processes, 724

Adrenergic stimulation of taurine transport by the heart, R. Huxtable and J. Chubb, 409

Adrien, P.-M., and M. F. Baumgardner: Landsat, computers, and development projects, 466

African ungulates, w. LEUTHOLD, book review by S. M. Green, 723

Aggressive chemical mimicry by a bolas spi-

der, W. G. Eberhard, 1173 Agranoff, B. W. See Heacock, A. M. Ahern, J. G. See Feil, V. J., et al. Ahrens, T. J. See O'Keefe, J. D.

Airborne short-lived radionuclides of un-known origin in Sweden in 1976, L.-E. De Geer, 925 Akera, T.: Membrane adenosinetriphospha-

tase: a digitalis receptor?, 569

Alaerts, L., et al.: Primordial noble gases in chondrites: the abundance pattern was established in the solar nebula, 927

Albuquerque, E. X. See Tiedt, T. N., et al. Aldred, R. See Arnold, W. P., et al. Alexander, M. N. See Willenbrock, F. K., et al.

Allman, J. M. See Myerson, J., et al. Allred, J. C. See Bailey, J. E., et al. Alonzo, J. R. See Banks, E., et al.

Alpha blocking: absence in visuobehavioral deprivation, J. D. Glass, 58

Amacrine cells in Necturus retina: evidence for independent γ-aminobutyric acid- and glycine-releasing neurons, R. F. Miller et al., 748

Amaranth: use as food (letter), C. M. Stowe et al., 668

America by design, D. F. NOBLE, book review by W. D. Lewis, 722

Amorphous semiconductors (letter), D. Emin, 881

Amthor, F. See Ringo, J., et al.

Anaerobiosis and a theory of growth line for-mation, R. A. Lutz and D. C. Rhoads, 1222 Anders, E. See Alaerts, L., et al.
and T. Owen: Mars and Earth: origin

and abundance of volatiles, 453 Andersen, J. C. See Tan, H. K.

Anderson, J. G., et al.: Atomic chlorine and the chlorine monoxide radical in the stratosphere: three in situ observations, 501

ANDERSON, J. R., Language, memory, and thought, book review of, 922 Andrews, F. C. See Christian, S. D., et al. ANDREWS, S. M., et al., (Eds.), Problems in vertebrate evolution, book review of, 499

Angino, E. E.: High-level and long-lived radioactive waste disposal, 885 Anomalous solar rotation in the early 17th

century, J. A. Eddy et al., 824 Antarctica: a deep-freeze storehouse for meteorites, W. A. Cassidy et al., 727 Anthropology and history in Yucatán, G. D. JONES (Ed.), book review by G. H. Gossen,

Appel, C. See Baylor, E. R., et al. Appelbaum, E. R. See Bishop, P. E., et al.
Archean microfossils showing cell division
from the Swaziland System of South Af-

rica, A. H. Knoll and E. S. Barghoorn, 396 Architecture and energy, R. G. STEIN, book re-

view by D. Watson, 391 Arnold, W. P., et al.: Cigarette smoke activates guanylate cyclase and increases guanosine 3',5'-monophosphate in tissues, 934

Arteriosclerosis: is stress-induced immune suppression a risk factor? E. C. Lattime and H. R. Strausser, 302

Ary, I. See Feil, V. J., et al.

Asbestiform chain silicates: new minerals and structural groups, D. R. Veblen et al., 359
Aschbacher, P. W. See Feil, V. J., et al.
Association Affairs: AAAS news, 43, 484, 916; annual meeting, 390, 487, 718, 910, 1137, 1240

Atkin, A. See Bodis-Wollner, I., et al. Atomic chlorine and the chlorine monoxide radical in the stratosphere: three in situ observations, J. G. Anderson *et al.*, 501 Aufderheide, K. J.: Saltatory motility of unin-

serted trichocysts and mitochondria in Paramecium tetraurelia, 299

Augmentation trends (letters), R. Grantham and S. M. Schwartz, 124

Avery, W. H. See Whitmore, W. F., et al. Axon-sparing brain lesioning technique: the use of monosodium-L-glutamate and other amino acids, E. L. Simson et al., 515

B

Baig, S. See Molinari, R. L., et al.

Bailey, J. E., et al.: Characterization of bacterial growth by means of flow micro-fluorometry, 1175

Baker, T. L., and D. J. McGinty: Reversal of cardiopulmonary failure during active sleep in hypoxic kittens: implications for sudden infant death, 419

Balaban-Malenbaum, G., and F. Gilbert: Double minute chromosomes and the hoinogeneously staining regions in chromosomes of a human neuroblastoma cell line. 739

Ball, K. See Sekular, R.
Baltimore, D., et al.: Cancer congress in Argentina (letter), 253

Banks, E., et al.: Fibrous apatite grown on

modified collagen, 1164
Baram, T., et al.: Gonadotropin-releasing hormone in milk, 300

Barghoorn, E. S. See Knoll, A. H. Barrett, J. E.: Behavioral history as a determinant of the effects of d-amphetamine on punished behavior, 67
Barrick, D. E., et al.: Ocean surface currents

mapped by radar, 138 Barron, R. P. See Fenselau, C., et al.

Barry, W. H., et al.: Measurement of the human magnetic heart vector, 1159

Barshay, S. S. See Prinn, R. G. Barton, T. S. See Lovejoy, C. O., et al. Batzinger, R. P. See Fenselau, C., et al.

Batzinger, R. P., et al.: Saccharin and other sweeteners: mutagenic properties, 944
Baumgardner, M. F. See Adrien, P.-M.
Baylor, E. R., et al.: Virus transfer from surf

to wind, 575

Baylor, M. B. See Baylor, E. R., et al.

Baylor, M. B. See Baylor, E. R., et al.
Bé, A. W. H.: book review of Recent Foraminifera, 924
Beck, S. D. See Houk, E. J., et al.
Beckman, G. G. See Bridge, B. J.
Beef production efficiency, A. Trenkle and R. L. Willham, 1009

Beef production options and requirements for fossil fuel, G. M. Ward et al., 265 Behavioral choice: neural mechanisms in

Pleurobranchaea, M. P. Kovac and W. J. Davis, 632

Behavioral history as a determinant of the effects of d-amphetamine on punished behavior, J. E. Barrett, 67

Behringer, D. W. See Molinari, R. L., et al. Bender, M. L., et al.: Interstitial nitrate profiles and oxidation of sedimentary organic matter in the eastern equatorial Atlantic,

Benke, P. J., and D. Dittmar: Phosphoribosylpyrophosphate synthesis in cultured human cells, 1171

Bennett, C. L., et al.: Radiocarbon dating using electrostatic accelerators: negative ions provide the key, 508

Benson, W. R. See Fenselau, C., et al. Benzodiazepine receptor: demonstration in the central nervous system, H. Möhler and

T. Okada, 849 Berbaum, K. See Weisstein, A. N., et al. Bergman, T. See Haith, M. M., et al. Beukens, R. P. See Bennett, C. L., et al.

Beyer, M. M., et al.: Unilateral nephrectomy: effect on survival in NZB/NZW mice, 511

Bifunctional intercalators: relationship of antitumor activity of diacridines to the cell membrane, R. M. Fico *et al.*, 53

Biogenic amine synthesis defect in dihydropteridine reductase deficiency, S. H. Koslow and I. J. Butler, 522 Biohazard, M. ROGERS, book review by R. M.

May, 1144 Biological nuclear magnetic resonance spec-

troscopy, S. J. Opella, 158 Biological reactive intermediates, D. J. JOL-

LOW et al. (Eds.), book review by M. R. Franklin, 1029

Biology of marsupials, The, D. HUNSAKER II (Ed), book review by R. M. F. S. Sadleir,

Biology of marsupials, The, B. STONEHOUSE and D. GILMORE (Eds.), book review by R. M. F. S. Sadleir, 1147

Biostatistics in medicine (editorial), L. Thomas. 675

Birth defects and drugs in pregnancy, o. P. HEINONEN et al., book review by I. Leck,

Bishop, P. E., et al.: Intergeneric transfer of genes involved in the Rhizobium-legume symbiosis, 938 Black, T. D. See Rudee, M. L., et al.

Blair, C.: Cryptology and national security (letter), 448 Blanchard, D. C. See Baylor, E. R., et al.

Blass, E. M. See Teicher, M. H. Blattner, F. R. See Denniston-Thompson, K., et al. See also Furth, M. E., et al. See also Moore, D. D., et al.

Blind man living in normal society has circa-dian rhythms of 24.9 hours, L. E. M. Miles

et al., 421

Blinman, E. See Mehringer, P. J., Jr., et al. Bloom, F. See Segal, D. S., et al. Blot, W. J., et al.: Cancer mortality in U.S. counties with petroleum industries, 51

Bodis-Wollner, I., et al.: Visual association cortex and vision in man: patternevoked occipital potentials in a blind boy, 629

Body weight: reduction by long-term glycerol treatment, D. Wirtshafter and J. D. Davis,

Bolivar, F. See Itakura, K., et al.

Bolltovskoy, E., and R. WRIGHT, Recent Foraminifera, book review of, 924 Bonner, J. See Wallace, R. B., et al. Borgaonkar, D. S. See Koo, G. C., et al. Boulter, J. F. See Rudee, M. L., et al. "Bound water" in barnacle muscle as indicated in nuclear magnetic resonance studies, D. C. Chang et al., 1180

Bovine protoporphyria: the first nonhuman model of this hereditary photosensitizing disease, G. R. Ruth *et al.*, 199
Boyce, P. B.: Low light level detectors for as-

tronomy, 145 Boyer, H. W. See Itakura, K., et al. Bradbury, J. W. See McCracken, G. F. Bradow, R. L., and T. H. Maugh II: Sulfuric acid emissions from cars (letters), 880

Brazel, A. J. See Idso, S. B. Breast-feeding and population growth, J. Knodel, 1111

Breg. W. R. See Koo, G. C., et al. Bridge, B. J., and G. G. Beckman: Slope pro-

files of cycloidal form, 610 Brill, W. J. See Bishop, P. E., et al. Brinton, L. A. See Blot, W. J., et al. Britten, R. J.: book review of Molecular an-

thropology, 286 Broten, N. W. See Yen, J. L., et al. Brown, C. C. See Grubbs, C. J., et al.

Brown, C. C. See Grubbs, C. J., et al. Browne, R. G. See Segal, D. S., et al. Bruszweski, J. See Rasheed, S., et al. Bueding, E. See Batzinger, R. P., et al. Burgis, V. See Frederickson, R. C. A., et al. Burnham, C. W. See Veblen, D. R., et al. Burnham, C. W. See Veblen, D. R., et al. Burnhs, J. A. (Ed.), Planetary satellites, book review of 1147

review of, 1147 Busby, C. I.: book review of Prehistory of the

Far West, 817 Buseck, P. R. See Veblen, D. R., et al. Butler, I. J. See Koslow, S. H. Byrd, L. D. See Dews, P. B., et al.

Calcium oxalate: occurrence in soils and effect on nutrient and geochemical cycles, W. C. Graustein et al., 1252

Calvin, M. See Nielsen, P. E., et al. Cameron, D. P. See Patel, Y. C., et al. Campbell, F. W. See Rudee, M. L., et al. Campbell, R. G. See Thompson, D. A. Cancer congress boycott (letter),

Düzgüneş, 782

Cancer congress in Argentina (letter), D. Baltimore et al., 253
Cancer mortality in U.S. countries with petroleum industries, W. J. Blot et al., 51
Canellakis, E. S. See Fico, R. M., et al.
Cantor, S., and S. K. Saxena: Entropy estimates of corners and other ciliartes. 206.

mates of garnets and other silicates, 206 Carbon-14: direct detection at natural concen-

trations, D. E. Nelson et al., 507
Carbon-14-labeled diethylstilbestrol synthesis by the McMurry method: concurrent formation of hexestrol, V. J. Feil et al., 510

Carbon monoxide on Jupiter and implications for atmospheric convection, R. G. Prinn and S. S. Barshay, 1031

INDEX TO VOLUME 198 Carcinogenic risk assessment, J. Cornfield, Carcinogens in industry (letter), J. T. Talty,

Cardinale, G. J. See Iwatsuki, K., et al. Carey, W. D. (editorials): Intergovernmental cooperation in science, 785; Thoughts on reorganization, 129. See also Press, F

Caride, V. J., and B. L. Zaret: Liposome accumulation in regions of experimental myocardial infarction, 735

Carpenter, R. J.: book review of Problems in economic and social archaeology, 183 Carter, L. J. (News and Comment): Alaska wilderness, 474; chemical plants contaminate two Virginia rivers, 1015; coal and energy-environment conflict, 276; coal burning offsets air pollution progress gains, 1233; [Marion] Edey appointment to Council on Environmental Quality rejected, 473; lead shot banned for waterfowl, 1232; mineral and mining federal policy review, 809; nuclear waste documentary, 1232: Office of Science and Technology.

472; Sun Day, 472; [Robert D.] Thorne as nominee for energy R & D post, 34 Casida, J. E. See Saleh, M. A., et al. Cassidy, W. A., et al.: Antarctica: a deep-freeze storehouse for meteorites, 727

Cech, S. Y., and L. J. Ignarro: Cytidine 3',5'-monophosphate (cyclic CMP) formation in mammalian tissues, 1063

Cell-free modulation of proinsulin synthesis, P. T. Lomedico and G. F. Saunders, 620 Cell hybrids, N. R. RINGERTZ and R. E. SAV-AGE, book review by T. B. Shows, 1248

Cell surface in animal embryogenesis and development, The, G. POSTE and G. L. NICOLson (Eds.), book review by R. Marchase,

Cell wall biochemistry related to specificity in host-plant pathogen interactions, s. sol-HEIM and J. RAA (Eds.), book review by N. T. Keen, 47

Cellular ageing, R. G. CUTLER (Ed.), book review by V. J. Cristofalo, 818 Cellular basis of behavior, The, E. R. KANDEL,

book review by C. F. Stevens, 815 Chang, D. C. et al.: "Bound water" in barn-

acle muscle as indicated in nuclear magnetic resonance studies, 1180

Characterization of bacterial growth by means of flow microfluorometry, J. E. Bai-

ley et al., 1175 CHARLES-DOMINIQUE, P., Ecology and behaviour of nocturnal primates, book review of,

Charnockite geotherm, The, S. K. Saxena,

Cheatle, M. D. See Rudy, J. W.

Checkerboards and color aftereffects, F. D. Smith et al., 207

Chemical evidence for separating the Psilotaceae from the Filicales, G. Cooper-Driver, 1260

Chen, T. K. See Fico, R. M., et al. Cheng, T.-Y., and T. H. Voqui: Regeneration of Douglas fir plantlets through tissue culture, 306

Chéramy, A. See Nieoullon, A., et al. Chianelli, R. R. See Banks, E., et al. Chino, H. See Sakurai, S., et al.

Chitin, R. A. A. MUZZARELLI, book review by M. Locke, 392

Chitin synthesis inhibitors: effects on fungi? (letters), K. M. Paterson and J. L. Marx,

Christian, S. D., et al.: Simple solutions: concentrations in the surface region, 210

Chrysotile asbestos: effects of human exposure (letter) A. N. Rohl et al., 1202 Chubb, J. See Huxtable, R.

Cigarette smoke activates guanylate cyclase and increases guanosine 3',5'-monoand increases guanosine 3',5'-monophosphate in tissues, W. P. Arnold et al.,

Cline, J. D., and M. L. Holmes: Submarine seepage of natural gas in Norton Sound,

Clockwise growth of neurites from retinal ex-

plants, A. M. Heacock and B. W. Agranoff,

Clover, M. R. See Bennett, C. L., et al. Clustering hypothesis of some high-temperature superconductors, J. M. Vandenberg and B. T. Matthias, 194

Coadapted competitors: the flowering seasons of hummingbird-pollinated plants in a tropical forest, F. G. Stiles, 1177

Code of the scientist and its relationship to ethics, The, A. Cournand, 699

Cognition and reality, U. NEISSER, book review by D. E. Rumelhart, 816 Cohen, M. L., and L. M. Falicov: The 1977 Nobel prize in physics (Research News),

Cold Spring Harbor symposia on quantitative biology, book review by A. R. Williamson, vol. 41, 599

Cole, R. M., et al.: Spiroplasmavirus citri 3: propagation, purification, proteins, and nucleic acid, 1262

Colwell, R. R., et al.: Vibrio cholerae, Vibrio parahaemolyticus, and other vibrios: occurrence and distribution in Chesapeake Bay, 394

Comar, C.: Environmental assessment: a pragmatic view (editorial), 567

Comprehensive biochemistry, M. FLORKIN, book review by R. Olby, 1028

Computer encryption: key size (letter), M. E. Hellman, 8 Computer "therapy" (letters), J. Gaschnig

and J. M. Vanderplas, 880

Computers as "therapists" (letter), J. Weizenbaum, 354

Concepts and methods of biostratigraphy, E. G. KAUFFMAN and J. E. HAZEL (Eds.), book review by W. C. Sweet, 285 Concerning Y. Orlov and A. Sharansky (let-ter), L. G. Hyman et al., 253

Conservation of potassium in the Pinus resinosa ecosystem, E. L. Stone and R. Kszystyniak, 192

Conservation: the Minnesota plan (editorial), J. P. Millhone, 1207

Constans, J., and M. Viau: Group-specific component: evidence for two subtypes of the Gc1 gene, 1070

Construction of chimeric phages and plasmids containing the origin of replication of bacteriophage lambda, D. D. Moore et al., 1041

Cook, E. R., and G. C. Jacoby, Jr.: Tree-ring-drought relationships in the Hudson Valley, New York, 399 Cook, R. E.: Raymond Lindeman and the tro-

phic-dynamic concept in ecology, 22

Cooper-Driver, G.: Chemical evidence for separating the Psilotaceae from the Filicales, 1260

Coren, S., and C. Porac: Fifty centuries of right-handedness: the historical record, 631 Corneal endothelium damage with intraocular lenses: contact adhesion between surgical materials and tissue, H. E. Kaufman et al., 525

Cornfield, J.: Carcinogenic risk assessment, 693

Cortical mechanisms that augment or reduce evoked potentials in cats, J. H. Lukas and J. Siegel, 73

Corwin, T. R. See Smith, F. D., et al. Cournand, A.: The code of the scientist and its relationship to ethics, 699

Covers: asbestiform magnesium chain silicates (28 Oct.); bottle-nosed porpoise (18 Nov.); cortisol patterns of adult rhesus monkeys (7 Oct.); crystals of weddellite (23 Dec.); flow cytometer (14 Oct.); octopus (2 Dec.); reconstituted collagen tape (16 Dec.); right-handed scribe (11 Nov.); Rosa Ursina (25 Nov.); schematic of satellite very-long-baseline interferometer system (21 Oct.); suspended material of microscopic marine plants and animals (9 Dec.);

Washington Monument (4 Nov.) Cowan, R. S.: book review of Eugenics and politics in Britain, 1900-1914, 498

Cox, E. R. See Rizzo, P. J.

Coyle, J. T. See Herndon, R. M. Crandall, R. S., and R. Williams: Gravitation-

al compression of crystallized suspensions of polystyrene spheres, 293

Craumer, P. See Johnson, W. A., et al. Crea, R. See Itakura, K., et al.

CRESSMAN, L. S., Prehistory of the Far West, book review of, 817 Cristofalo, V. J.: book review of Cellular

ageing, 818

Crocker, R. See Ringo, J., et al. Cromack, K., Jr. See Graustein, W. C., et al. Crossed electroimmunodiffusion and bloodstain investigations, P. H. Whitehead and G. H. Sweet, 427

Cryptology and national security (letter), C. Blair, 448

Culliton, B. J. (News and Comment): appointments not being made by Administration, 592; mammography controversy, 171; [Russell] Peterson to Office of Technology Assessment?, 592; psychiatry and the United States and the U.S.S.R., 593

CUSHING, D. H., and J. J. WALSH, The ecology of the seas, book review of, 47

CUTLER, R. G. (Ed.), Cellular ageing, book re-

view of, 818

Cyclic nucleotides injected intracellularly into rat superior cervical ganglion cells, J. P. Gallagher and P. Shinnick-Gallagher, 851

Cyclic nucleotides in the nervous system, J. DALY, book review by J. W. Kebabian, 599 Cytidine 3',5'-monophosphate (cyclic CMP) formation in mammalian tissues, S. Cech and L. J. Ignarro, 1064

D

Dacheux, R. F. See Miller, R. F., et al. Dalmayrac, B., et al.: Two-billion-year gran-ulites in the Late Precambrian metamorphic basement along the southern Peruvian coast, 49

DALY, J., Cyclic nucleotides in the nervous system, book review, 599

Damle, S. R. See Vyas, G. N., et al. Daniel, E. E. See Garfield, R. E., et al. Daniels, J. D. See Norman, J. L., et al. Davis, J. D. See Wirtshafter, D.

Davis, J. D. See Wirtshafter, D. Davis, R. M. See Willenbrock, F. K., et al. Davis, W. J. See Kovac, M. P. Dawson, H. See Ugolini, F. C., et al. Dazzo, F. B. See Bishop, P. E., et al. DeBault, L. E. See Doerder, F. P., et al. De Camp, W. H., and S. W. Pelletier: Veat-

chine: coexistence of epimers in a crystal structure, 726

De Geer, L.-E.: Airborne short-lived radionuclides of unknown origin in Sweden in

1976, 925

Degenerating nerve fiber products do not alter physiological properties of adjacent in-nervated skeletal muscle fibers, T. N. Tiedt

et al., 839 de la Torre, J. See Wolfe, A. W., et al. Denniston-Thompson, K. See Moore, D. D., et al.

Denniston-Thompson, K., et al.: Physical structure of the replication origin of bacteriophage lambda, 1051 Deslattes, R. D.: NBS: state of health (letter),

562

Desrosiers, esrosiers, A. E.: Lignite-fueled power plants: radioactive emissions (letter), 1100

Deuterolysis of amino acid precursors: evidence for hydrogen cyanide polymers as protein ancestors, C. Matthews et al., 622

Deutsch, J. A., and N. Y. Walton: Diazepam maintenance of alcohol preference during alcohol withdrawal. 307 alcohol withdrawal, 307

Dews, P. B., et al.: Rate-dependency hypothesis, 1182

Diazepam maintenance of alcohol preference during alcohol withdrawal, J. A. Deutsch and N. Y. Walton, 307

Diesel emissions (letter), F. J. Hooven, 250 Direct evidence of particle migration in the soil solution of a Podzol, F. C. Ugolini et al., 603

Disalvo, F.: book review of Structural chemistry of layer-type phases, 1030

Dittmar, D. See Benke, P. J.
Dobbing, J.: book review of Nutrition and the brain, 287

Doerder, F. P., et al.: Macronuclear subunits of Tetrahymena thermophila are functionally haploid, 946

Double minute chromosomes and the homogeneously staining regions in chromosomes of a human neuroblastoma cell line, G. Balaban-Malenbaum and F. Gilbert, 739 Douglas, T. See Meo, T., et al.

Dove, W. F. See Furth, M. E., et al. Doyle, G. A.: book review of Ecology and behaviour of nocturnal primates, 923

Driscoll, P. A. See Gallagher, M., et al. Dube, S. K. See Wallace, R. B., et al. DUCE, R. A. See WINDOM, H. L., et al. Duguay, M. A. See Whitmore, W. F., et al.

DUNCAN, S., JR., and D. W. FISKE, Face-to-face interaction, book review of, 723

Durney, A. C. See Ogilvie, K. W., et al. Düzgüneş, N.: Cancer congress boycott (let-ter), 782

Dynamics of molecular collisions, W. H. MILLER (Ed.), book review by J. C. Light,

E

Early development of X-cells in kitten lateral geniculate nucleus, J. L. Norman et al., 202 Ebel, T. A.: Medical schools' problems (letter), 250

Eberhard, W. G.: Aggressive chemical mimicry by a bolas spider, 1173

Ecology and behaviour of nocturnal primates, P. CHARLES-DOMINIQUE, book review by G. A. Doyle, 923

Ecology of the seas, The, D. H. CUSHING and J. J. WALSH, book review by P. A. Larkin,

Eddy, J. A., et al.: Anomalous solar rotation in the early 17th century, 824

Edgar, R. S., and W. B. Wood: The nematode Caenorhabditis elegans: a new organism for intensive biological study, 1285

Editorials: Biostatistics in medicine,

Conservation: the Minnesota plan, 1207; Environmental assessment: a pragmatic view, 567; How much more oil?, 451; Intergovernmental cooperation in science, 785; Is there a crisis of confidence in science?, 995; The leadership of the Geological Survey, 11; Recombinant DNA legislationwhat next?, 357; Responsibility for health, 1103; Soil and coal: a cost-benefit inquiry 255; Thoughts on reorganization, 129; Will Xerox kill Gutenberg?, 883

Edwards, J. D. See Frederickson, R. C. A., et

Effects of the winter of 1976-1977 on the northwestern Sargasso Sea, A. Leetmaa,

Ehrenwald, J., and G. B. Kolata: Einstein on ESP (letters), 448

Einstein on ESP (letters), J. Ehrenwald and G. B. Kolata, 448

Eisenberg, L.: The social imperatives of medical research, 1105

Elachi, C., et al.: Ocean wave patterns under Hurricane Gloria: observation with an airborne synthetic-aperture radar, 609

Elastase release from human alveolar macrophages: comparison between smokers and nonsmokers, R. J. Rodriguez et al., 313

Electrical phenomena at the biological membrane level, E. ROUX (Ed.), book review by J. E. Hall, 499

Emergence of society, The, J. E. PFEIFFER, book review by C. L. Redman, 183
Emigh, V. D., and D. R. Farrar: Gemmae: a

role in sexual reproduction in the fern genus Vittaria, 297

Emiliani, C.: Oxygen isotopic analysis of the size fraction between 62 and 250 micrometers in Caribbean cores P6304-8 and P6304-9, 1255

Emin, D.: Amorphous semiconductors (let-ter), 881

Emmett, E. A., et al.: Phototoxic keratoconjunctivitis from coal-tar pitch volatiles, 841 β-Endorphin: endogenous opiate or neurolep-

tic?, D. S. Segal et al., 411 Energy conservation in Amish agriculture, W. A. Johnson et al., 373

Entropy estimates of garnets and other silicates, S. Cantor and S. K. Saxena, 206 Environmental assessment: a pragmatic view

(editorial), C. Comar, 567 Epstein; S., et al.: Oxygen and hydrogen iso-

topic ratios in plant cellulose, 1209 ERÄNKÖ, O. (Ed.), SIF cells, book review of,

Erlanger, B. F. See Koo, G. C., et al. Erratum: for J. Marx (28 Oct., p. 388), 713 Erythrocyte lipids in heterozygous carriers of Duchenne muscular dystrophy, J. L. Howland and S. L. Iyer, 309 Esra, G. See Rasheed, S., et al.

Establishment of a cell line with associated Epstein-Barr-like virus from a leukemic orangutan, S. Rasheed et al., 407

Estes, R.: book review of Problems in vertebrate evolution, 499

Estuarine processes, M. WILEY (Ed.), book review by S. M. Adams, 724

Eugenics and politics in Britain, 1900-1914, G. R. SEARLE, book review by R. S. Cowan,

Evans, D. L., et al.: Variations in the earth's orbit: pacemaker of the ice ages?, 528 Evans, F. J.: book review of Methodologies of

hypnosis, 600 Evans, M. W. See Barrick, D. E., et al. Evidence for a polination-drop mechanism in Paleozoic pteridosperms, G. W. Rothwell,

Evolution of primate chromosomes, D. A.

Miller, 1116 Expression in Escherichia coli of a chemically synthesized gene for the hormone somatostatin, K. Itakura et al., 1056

Eye contact and face scanning in early infancy, M. M. Haith et al., 853

Face-to-face interaction, s. DUNCAN, JR., and D. W. FISKE, book review by C. Mayo, 723 Faiferman, I. See Koffler, D., et al. Fairbank, W. M. See Barry, W. H., et al. Falicov, L. M. See Cohen, M. L. Famiglietti, E. V., Jr., et al.: Neuronal archivers and the second of the second of

tecture of on and off pathways to ganglion cells in carp retina, 1267

Fanning, K. A. See Bender, M. L., et al. Farrar, D. R. See Emigh, V. D.

Farrell, W. J. See Spriestersbach, D. C. Farrington, J. W. See Hites, R. A., et al. Farrow, G. M. See Grubbs, C. J., et al.

Fascioliasis: role of proline in bile duct hyperplasia, H. Isseroff et al., 1157 Fate and effects of petroleum hydrocarbons in

marine ecosystems and organisms, D. A. WOLFE (Ed.), book review by P. A. Meyers, 1030

Fazel-Madjlessi, J. See Bailey, J. E., et al. Feil, V. J., et al.: Carbon-14-labeled diethylstilbestrol synthesis by the McMurry method: concurrent formation of hexestrol, 510

Fein, G. See Feinberg, I., et al. Feinberg, I., et al.: Flurazepam effects on slow-wave sleep: stage 4 suppressed but

number of delta waves constant, 847 Fenfluramine and fluoxetine spare protein consumption while suppressing caloric intake by rats, J. J. Wurtman and R. J. Wurtman, 1178

Fenselau, C., et al.: Mandelonitrile β -glucuronide: synthesis and characterization, 625

Fibrous apatite grown on modified collagen, E. Banks *et al.*, 1164 Fico, R. M., *et al.*: Bifunctional intercalators:

relationship of antitumor activity of diacridines to the cell membrane, 53

Fifty centuries of right-handedness: the historical record, S. Coren and C. Porac, 631 First suckling response of the newborn albino rat: the roles of olfaction and amniotic fluid. M. H. Teicher and E. M. Blass, 635

FISKE, D. W. See DUNCAN, S., JR. Fleagle, J. G.: book review of Primates of South Asia, 724

FLORKIN, M., Comprehensive biochemistry,

Floyd, T. C. See Feinberg, I., et al.
Fluid inclusion assemblages of the stratiform
Broken Hill ore deposit, New South Wales,
Australia, R. W. T. Wilkins, 185
Flurazepam effects on slow-wave sleep: stage

4 suppressed but number of delta waves constant, I. Feinberg et al., 847

Folate conjugase: two separate activities in human jejunum, A. M. Reisenauer et al.,

Fort, D. N. See Yen, J. L., et al. Foster, K. R. See Chang, D. C., et al. Franklin, M. R.: book review of Biological reactive intermediates, 1029

Fraumeni, J. F., Jr. See Blot, W. J., et al. Frederickson, C. J., and G. M. Gerken: Masking of electrical by acoustic stimuli: behavioral evidence for tonotopic organization, 1276

Frederickson, R. C. A., et al.: Hyperalgesia induced by naloxone follows diurnal rhythm in responsivity to painful stimuli,

Free radical increases in cancer: evidence that there is not a real increase, H. M. Swartz and P. L. Gutierrez, 936
Freeland, H. J. See Evans, D. L., et al.

Frei, E., III. See Baltimore, D., et al. Fridkin, M. See Baram, T., et al. Friedman, E. A. See Beyer, M. M., et al. Friedman, R. See Peters, M., et al. Froelich, P. N. See Bender, M. L., et al. From neuron to brain, s. w. KUFFLER and J. G. NICHOLLS, book review by C. F. Ste-

vens, 815 Frumkes, T. E. See Miller, R. F., et al. Furth, M. E. See Denniston-Thompson, K., et al. See also Moore, D. D., et al.

Furth, M. E., et al.: Genetic structure of the replication origin of bacteriophage lambda,

G

GAINER, H. (Ed), Peptides in neurobiology,

hook review of, 1247
Gallagher, J. P., and P. Shinnick-Gallagher:
Cyclic nucleotides injected intracellularly into rat superior cervical ganglion cells, 851 Gallagher, M., et al.: Memory formation: evidence for a specific neurochemical system

in the amygdala, 423

Gallup, G. G., Jr., See Tedeschi, J. T., et al.
Galston, A. W. See Racusen, R. H., et al.
Gamesman, The, M. MACCOBY, book review
by A. Levine, 920

Gantt, D. G., et al.: Hominoid enamel prism

patterns, 1155 Gap junctions: their presence and necessity in myometrium during parturition, R. E. Gar-

field et al., 958 Gardner, M. B. See Rasheed, S., et al. Garfield, R. E., et al.: Gap junctions: their

presence and necessity in myometrium during parturition, 958
Garon, C. F. See Cole, R. M., et al.
Garroway, A. N. See Chang, D. C., et al.
Gaschnig, J., and J. M. Vanderplas: Computational Conference (Marchael 2004) er "therapy" (letters), 880 Gemmae: a role in sexual reproduction in the

fern genus Vittaria: V. D. Emigh and D. R. Farrar, 297

Genel, M. See Koo, G. C., et al. Genetic structure of the replication origin of bacteriophage lambda, M. E. Furth et al.,

Geometry of adsorbates on solid surfaces, E. W. Plummer and T. Gustafsson, 165 Gerber, M. A. See Koffler, D., et al. Gerken, G. M. See Frederickson, C. J.

Gilbert, F. See Balaban-Malenbaum, G. Gilbert, J. P., et al.: Statistics and ethics in surgery and anesthesia, 684 Gilman, P. A. See Eddy, J. A., et al.

GILMORE, D. See STONEHOUSE, B. Ginsburg, A. P. See Rudee, M. L., et al. Glass, J. D.: Alpha blocking: absence in vis-

uobehavioral deprivation, 58 Glass, L.: Patterns of supernumerary limb re-

generation, 321 Glowinski, J. See Nieoullon, A., et al. Glyoxalase I polymorphism in the mouse: a new genetic marker linked to H-2, T. Meo

et al., 311 Gold, R. M. See Simson, E. L., et al. Goldberg, E. P. See Kaufman, H. E., et al. Goldberg, I. S. See Rudee, M. L., et al. Goldman, B. D. See Tamarkin, L., et al. Goldwasser, E. See Van Zant, G.

Gonadotropin-releasing hormone in milk, T.

Baram et al., 300
Gonzalez, F. A. See Dews, P. B., et al.
Good, R. A. See Miké, V.
Goodfield, J.: Humanity in science: a per-

spective and a plea, 580

GOODFIELD, J., Playing God, book review of,

Goodman, D. G. See Grubbs, C. J., et al. GOODMAN, M., et al. (Eds.), Molecular anthropology, book review of, 286 Gossen, G. H.: book review of Anthropology

and history in Yucatán, 45

Gove, H. E. See Bennett, C. L., et al. Graham, K. F. See Smith, D. D. Grantham, R., and S. M. Schwartz: Augmentation trends (letters), 124

Grants for project on handicapped (AAAS), J. Kaplan, 44

Grasshoppers and locusts, B. UVAROV, book

review by M. J. D. White, 1247 Graustein, W. C., et al.: Calcium oxalate: occurrence in soils and effect on nutrient and geochemical cycles, 1252

Gravitational compression of crystallized suspensions of polystyrene spheres, R. S. Crandall and R. Williams, 293 Green, M. A. See Smith, F. D., et al.

Green, S. M.: book review of African ungulates, 723

Greenstein, M. See Jezyk, P. F., et al. Grell, E. H. See Yim, J. J., et al. Griffiths, G. W. See Houk, E. J., et al. Group-specific component: evidence for two subtypes of the Gc1 gene, J. Constans and

M. Viau, 1070 Grubbs, C. J., et al.: 13-cis-Retinoic acid: inhibition of bladder carcinogenesis induced in rats by N-butyl-N-(4-hydroxybutyl-nitrosamine, 743

Guillemin, R. See Segal, D. S., et al. Gulati, J. See Ling, G. N., et al. Gustafsson, T. See Plummer, E. W. Guth, L. See Tiedt, T. N., et al. Gutierrez, P. L. See Swartz, H. M. Gyles, C. L., et al.: Naturally occurring plas-

mid carrying genes for enterotoxin production and drug resistance, 198

Hadjokas, N. E. See Houk, E. J., et al. Hadlow, W. J.: book review of Slow virus infections of the central nervous system, 48 Hair element content in learning disabled children, R. O. Pihl, and M. Parkes, 204 Haith, M. M., et al.: Eye contact and face

scanning in early infancy, 853
Hall, J. E.: book review of Electrical phenomena at the biological membrane level, 499

Hall, P. Q. See Joyce, N. C. Halley, B. A. See Nelson, E. C., et al. Halsted, C. H. See Reisenauer, A. M. et al. Halvorson, H. O.: Recombinant DNA legisla-

tion-what next? (editorial), 357 Hammond, A. L. (Research News): astronomy in Chile, 1235

HANSON, E. D., The origin and early evolution

of animals, book review of, 1146 Hardin, G.: Will Xerox kill Gutenberg? (editorial), 883

Hardisky, M. A., and R. J. Reimold: Saltmarsh plant geratology, 612
Harris, J. M. See White, T. D.
Harrison, D. C. See Barry, W. H., et al.
Hartfield, K. L. See Rudee, M. L., et al.
Haschick, A. D., et. al.: Water vapor maser
"turn-on" in the HH region W3 (OH), 1153

Haskins, M. E. See Jezyk, P. F., et al. Hawkes, N. (News and Comment): Marxists reported to have infiltrated British universities, 1230; moratorium set on Antarctic oil at October meeting, 709 Hays, J. D. See Evans, D. L., et al.

Hazum, E. See Baram, T., et al. Heacock, A. M., and B. W. Agranoff: Clockwise growth of neurites from retinal ex-

Heath, G. R. See Bender, M. L., et al Heatley, S. A. See Wolfe, A. W., et al. HEINONEN, O. P. et al., Birth defects and

drugs in pregnancy, book review of, 1246 Heiple, K. G. See Lovejoy, C. O., et al. Hellman, M. E.: Computer encryption: key size (letter), 8

Hepatitis B "e" antigen: an apparent association with lactate dehydrogenase isozyme-5,

G. N. Vyas et al., 1068

Herbert, V.: Acquiring new information while retaining old ethics, 690

Herndon, R. M., and J. T. Coyle: Selective destruction of neurons by a transmitter agonist, 71

Heyneker, H. L. See Itakura, K., et al. Hickey, T. L.: Postnatal development of the human lateral geniculate nucleus: relationship to a critical period for the visual system, 836

High-level and long-lived radioactive waste disposal, E. E. Angino, 885

High pressures on small areas, A. L. Ruoff

and J. Wanagel, 1037 Hippocampal efferents reach widespread areas of cerebral cortex and amygdala in the rhesus monkey, D. L. Rosene and G. W. Van Hoesen, 315

Hirose, T. See Itakura, K., et al. Histone occurrence in chromatin from Peri-dinium balticum, a binucleate dinoflagel-

late, P. J. Rizzo and E. R. Cox, 1258 Hites, R. A. See Windsor, J. G., Jr., et al. Hites, R. A., et al.: Sedimentary polycyclic aromatic hydrocarbons: the historical rec-

Hobson, B. W. See Ward, G. M., et al. Hochachka, P. W., et al.: Pulmonary metabolism during diving: conditioning blood for the brain, 831

Hoffman, D. J., and S. K. Niyogi: Metal mutagens and carcinogens affect RNA syn-

thesis rates in a distinct manner, 513
Holaday, J. W., et al.: Synchronized ultra-dian cortisol rhythms in monkeys: persistence during corticotropin infusion, 56

Holden, C. (News and Comment): American Association for the Advancement of the Humanities, 902; Clean Water Act of 1972 revised, 1130; ecology and national security, 712; health records and privacy, 382; heroin for medical use, 807; hypnosis and pain control, 808; iceberg conference, 274; mental health, 37, 903; nutritional lobby, 36; [Russell] Peterson to head Office of Technology Assessment, 903; [Carl] Rogers profile, 31; Soviets and American mathematician, 174; sugared cereals, 902; VA hospi-

tician, 1/4; sugared cereals, 902; VA hospital system under scrutiny, 36
Holliday, R., et al.: Testing the commitment theory of cellular aging, 366
Hollister, C. W. See Tamarkin, L., et al.
Holmes, M. L. See Cline, J. D.
Holocene woodlands in the southwestern deserts, T. R. Van Devender, 189

Hominoid enamel prism patterns, D. G. Gantt et al., 1155

Hooven, F. J.: Diesel emissions (letter), 250 Horan, P. K., and L. L. Wheeless, Jr.: Quantitative single cell analysis and sorting, 149 Hormonal inhibition of feeding and death in

Octopus: control by optic gland secretion, J. Wodinsky, 948 Houk, E. J., et al.: Peptidoglycan in the cell

wall of the primary intracellular symbiote of the pea aphid, 401

How many anticodons?, T. H. Jukes. 319 How much more oil? (editorial), P. H. Abelson, 451

Howe, H. F.: Sex-ratio adjustment in the common grackle, 744

Howland, J. L., and S. L. Iyer: Erythrocyte lipids in heterozygous carriers of Duchenne muscular dystrophy, 309

HUFFAKER, C. B., and P. S. MESSENGER (Eds.), Theory and practice of biological control, book review of, 1029 HULLIGER, F., Structural chemistry of layer-

type phases, book review of, 1030 Human factor VIII: morphometric analysis of

purified material in solution, H. K. Tan and J. C. Andersen, 932

Human subjects research (letters), J. T. Tedeschi et al., 1099

Humanity in science: a perspective and a plea, J. Goodfield, 580

Hunger in humans induced by 2-deoxy-D-glucose: glucoprovic control of taste preference and food intake, D. A. Thompson and R. G. Campbell, 1065

HUNSAKER, D., II (Ed.), The biology of marsu-pials, book review of, 1147

Huschtscha, L. I. See Holliday, R., et al. Huxtable, R.: Style and science (letter), 688 and J. Chubb: Adrenergic stimulation of taurine transport by the heart, 409

H-Y antigen and the genetics of sex determination, S. S. Wachtel, 797

β-Hydroxy- 5α -cholestan-6-one: a possible precursor of α -ecdysone biosynthesis, S. Sakurai et al., 627

Hyman, L. G., et al.: Concerning Y. Orlov and A. Sharansky (letter), 253

Hyperalgesia induced by naloxone follows diurnal rhythm in responsivity to painful stimuli, R. C. A. Frederickson et al., 756 Hypertension and the nature of stress, M. Pe-

ters et al., 80

Hypertension: increase of collagen biosynthesis in arteries but not in veins, K. Iwatsuki et al., 403

I

Idso, S. B., and A. J. Brazel: Planetary radiation balance as a function of atmospheric dust: climatological consequences, 731

lignarro, L. J. See Cech, S. Y.
lijima, I. See Jacquet, Y. F., et al.
lkekawa, N. See Sakurai, S., et al.
lmbrie, J. See Evans, D. L., et al.
lmitation of facial and manual gestures by human neonates, A. N. Meltzoff and M. K.

Moore, 75

Immunofluorescence localization of proteins of high molecular weight along intracellular microtubules, P. Sherline and K. Schiavone, 1038

Impact of federal regulations at a university, D. C. Spriestersbach and W. J. Farrell, 27 Implications of solar evolution for the earth's early atmosphere, M. J. Newman and R. T. Rood, 1035

Increasing frequency of thyroid goiters in coho salmon (Oncorhynchus kisutch) in the Great Lakes, R. D. Moccia et al., 425

Interactions between rod and cone systems in the goldfish retina, J. M. Shefner and M. W. Levine, 750

Interdependence of the nigrostriatal dopaminergic systems on the two sides of the brain

in the cat, A. Nieoullon et al., 416 Interdisciplinary education: a continuing experiment, M. G. Wolman, 800 Intergeneric transfer of genes involved in the

Rhizobium-legume symbiosis, P. E. Bishop et al., 938

Intergovernmental cooperation in science (editorial), W. D. Carey, 785

Intergovernmental science panel (letters), F. Press and W. D. Carey, 988

International sun-earth explorer: a three-spacecraft program, K. W. Ogilvie et al., 131

Interstitial nitrate profiles and oxidation of sedimentary organic matter in the eastern equatorial Atlantic, M. L. Bender et al.,

Investigating paranormal claims (letter), M. Truzzi, 448

Is there a crisis of confidence in science? (editorial), C. Z. Nunn, 995 Ishida, A. T. See Stell, W. K., et al.

Isseroff, H., et al.: Fascioliasis: role of pro-

line in bile duct hyperplasia, 1157 Itakura, K., et al.: Expression in Escherichia coli of a chemically synthesized gene for the hormone somatostatin, 1056 Iversen, L.: book review of Peptides in neuro-

biology, 1247

Iwai, J. See Peters, M., et al. Iwatsuki, K., et al.: Hypertension: increase of collagen biosynthesis in arteries but not in veins, 403

Iyer, S. L. See Howland, J. L.

Jacklet, J. W.: Neuronal circadian rhythm: phase shifting by a protein synthesis inhib-

Jackson, I. M. D., and S. Reichlin: Thyrotropin-releasing hormone: abundance in the skin of the frog, Rana pipiens, 414 Jacobson, K. B. See Yim, J. J., et al.

Jacoby, G. C., Jr. See Cook, E. R.
Jacquet, Y. F., et al.: Stereospecific and non-stereospecific effects of (+)- and (-)-morphine: evidence for a new class of recep-

Jenne, E. A. See Nelson, H., et al, Jezyk, P. F., et al.: Mucopolysaccharidosis in a cat with arylsulfatase B deficiency: a

model of Maroteaux-Lamy syndrome, 834 Jöbsis, F. F.: Nonjuvasive, infrared monitoring of cerebral and myocardial oxygen sufficiency and circulatory parameters, 1264

Johnson, A. W.: Recombinant DNA con-

troversy (letter), 123
Johnson, W. A., et al.: Energy conservation in Amish agriculture, 373

JOLLOW, D. J., et al. (Eds.), Biological reactive intermediates, book review of, 1029 JONES, G. D. (Ed.), Anthropology and history

in Yucatán, book review of, 45 Joseph, S. W. See Colwell, R. R., et al. Jovanovic, L., et al.: Screening for twin pregnancy, 738Joyce, N. C., and P. Q. Hall: Women re-

searchers analyze education, job barriers (AAAS), 917

Jukes, T. H.: How many anticodons?, 319

K

KANDEL, E. R., The cellular basis of behavior, book review of, 815

Kaneko, A. See Famiglietti, E. V., Jr., et al. KANTER, R. M., Men and women of the corporation, book review of, 920

Kaper, J. See Colwell, R. R., et al. Kaplan, H. S. See Baltimore, D., et al. Kaplan, J.: \$185,000 in grants for project on

handicapped (AAAS), 44 Kapp, B. S. See Gallagher, M., et al. Kappas, A. See Maines, M. D. Katz, J. See Kaufman, H. E., et al. Katz, J. J. See Hyman, L. G., et al.

KATZ, M. See TER MEULEN, V. KAUFFMAN, E. G., and J. E. HAZEL (Eds.), Concepts and methods of biostratigraphy, book review of, 285

Kaufman, H. E., et al.: Corneal endothelium damage with intraocular lenses: contact adhesion between surgical materials and tis-

Kaula, W. M.: book review of Planetary satellites, 1147

Kebabian, J. W .: book review of Cyclic nucleotides in the nervous system, 599

Keck, O.: West German breeder cost (letter),

Keen, N. T.: book review of Cell wall biochemistry related to specificity in host-plant pathogen interactions, 47

Kellermann, K. I. See Yen, J. L., et al. Kelly, F. J. See Sáenz, A. W., et al. Kerr, R. A. (Research News): oceanography

and Gulf Stream rings, 387; oil in the ocean,

Kindleberger, C. P. (Research News): 1977 Nobel prize in economics, 813 King, D. See Elachi, C., et al.

King, D. See Elacin, C., et al. Kinnersley, A. M. See Racusen, R. H., et al. Kirkwood, T. B. L. See Holliday, R., et al. Klee, W. A. See Jacquet, Y. F., et al. Knodel, J.: Breast-feeding and population

growth, 1111

Knoll, A. H., and E. S. Barghoorn: Archean microfossils showing cell division from the Swaziland System of South Africa, 396 Knowles, J. H.: Responsibility for health (edi-

torial), 1103 Knowles, P. L., and J. S. Lockard: Panhandling as an example of the sharing of re-

sources, 857

Knowles, S. H. See Yen, J. L., et al. Knox, P. L. See Ward, G. M., et al. Knudsen, E. I., et al.: Receptive fields of auditory neurons in the owl, 1278 Koch, Y. See Baram, T., et al.

KOCSIS, J. J. See JOLLOW, D. J., et al. Koffler, D., et al.: Radioimmunoassay for antibodies to cytoplasmic ribosomes in hu-man serum, 741 Kohn, A. J.: book review of The origin and

early evolution of animals, 1146

Kolata, G. B. (News and Comment): clinical trials, 1127); (Research News): bacterial genetics, 41; mathematics and magic, 282; obesity; 905; protein degradation, 596. See also Ehrenwald, J.

Kommedahl, T. See Stowe, C. M., et al. Konishi, M. See Knudsen, E. I., et al. Koo, G. C., et al.: Mapping the locus of the H-Y gene on the human Y chromosome,

940 Korteling, R. G. See Nelson, D. E., et al. Koslow, S. H., and I. J. Butler: Biogenic amine synthesis defect in dihydropteridine

reductase deficiency, 522 Kotting, D. See Lovejoy, C. O., et al. Kovac, M. P., and W. J. Davis: Behavioral

choice: neural mechanisms in Pleurobranchaea, 632 Krasne, F. B., and S.-H. Lee: Regenerating

afferents establish synapses with a target neuron that lacks its cell body, 517 Kruger, K. E. See Denniston-Thompson, K.,

et al Krumdieck, C. L. See Reisenauer, A. M., et

Krupen-Brown, K. See Koo, G. C., et al. Kszystyniak, R. See Stone, E. L. KUFFLER, S. W., and J. G. NICHOLLS, From neuron to brain, book review of, 815 Kuypers, H. G. J. M. See Moll, L.

L

Laflamme, R. E. See Hites, R. A., et al. See also Windsor, J. G., Jr., et al.

Lamoureux, C. H. See Feil, V. J., et al. Lancelot, J. R. See Dalmayrac, B., et al. Landesman, R. See Jovanovic, L., et al.

Landsat, computers, and development projects, P.-M. Adrien and M. F. Baumgardner, 466

Langer, A. M. See Rohl, A. N., et al. Langfitt, T. W. See Welsh, F. A., et al. Language, memory, and thought, J. R. AN-

DERSON, book review by P. G. Polson, 922 Lal, D.: The oceanic microcosm of particles,

Larkin, P. A.: book review of The ecology of the seas, 47

Larsen, B. R. See Nelson, H., et al. Larsen, P. R. See Silva, J. E. Lattine, E. C., and H. R. Strausser: Arterio-

sclerosis: is stress-induced immune suppression a risk factor?, 302 Lazarus, G. S., et al.: Polymorphonuclear leukocytes: possible mechanism of accu-

mulation of psoriasis, 1162 Leadership of the Geological Survey, The (editorial), P. H. Abelson, 11 Leatherland, J. F. See Moccia, R. D., et al. Leck, I.: book review of Birth defects and drugs in pregnancy, 1246 Lee, L. Y. See Bailey, J. E., et al.

Lee, S.-H. See Krasne, F. B.

Lee, T. H.: Nuclear power initiatives: the

IEEE position (letter), 671 Leetmaa, A.: Effects of the winter of 1976– 1977 on the northwestern Sargasso Sea, 188 Lefebvre, N. G. See Tamarkin, L., et al. Legeckis, R. See Molinari, R. L., et al. Lehrman, K. L. See Barry, W. H., et al. LEUTHOLD, W., African ungulates, book re-

view of, 723 Levine, A.: book review of The gamesman

and Men and women of the corporation, 920

Levine, E. A. See Rodriguez, R. J., et al. Levine, M. W. See Shefner, J. M. Lewis, R. S. See Alaerts, L., et al. Lewis, W. D.: book review of America by de-sign, 722

Leyreloup, A. See Dalmayrac, B., et al. Liebert, R. B. See Bennett, C. L., et al. Lief, J. H. See Doerder, F. P., et al.

Liggins, G. C. See Hochachka, P. W., et al. Light, J. C.: book review of Dynamics of molecular collisions, 601

Lightfoot, D. O. See Stell, W. K., et al. Lignite-fueled power plants: radioactive emissions (letter), A. E. Desrosiers, 1100 Lilienfeld, A. M. See Lilienfeld, D. E. Lilienfeld, D. E., and A. M. Lilienfeld: "Watchdog" of the government? (letter),

Lindsay, H. A. See Wolfe, A. W., et al. Ling, G. N., et al.: Potassium accumulation in frog muscle: the association-induction hypothesis versus the membrane theory, 1281

Ling, N. See Segal, D. S., et al. Liposome accumulation in regions of experi-mental myocardial infarction, V. J. Caride

and B. L. Zaret, 735 Litherland, A. E. See Bennett, C. L., et al. Livingston, R. J.: book review of Marine pollutant transfer, 392

Localization of the globin gene in the template active fraction of chromatin of Friend leukemia cells, R. B. Wallace et al., 1166
Lockard, J. S. See Knowles, P. L.

Locke, M.: book review of Chitin, 392 Lomedico, P. T., and G. F. Saunders: Cell-free modulation of proinsulin synthesis, 620 LONGWORTH, I. H. See SIEVEKING, G. DE G., et al.

Lovejoy, C. O., et al.: Paleodemography of the Libben site, Ottawa County, Ohio, 291 Low light level detectors for astronomy, P. B.

Boyce, 145 Lukas, J. H., and J. Siegel: Cortical mechanisms that augment or reduce evoked potentials in cats, 73

Lutz, R. A., and D. C. Rhoads: Anaerobiosis and a theory of growth line formation, 1222 Lyon, N. C. See Wolfe, A. W., et al.

M

Maas, W. K. See Gyles, C. L., et al. MACCOBY, M., The gamesman, book review of. 920

Macronuclear subunits of Tetrahymena thermophila are functionally haploid, F. P.

Doerder et al., 946

Magnification in striate cortex and retinal ganglion cell layer of owl monkey: a quantitative comparison, J. Myerson et al., 855

Magnius, L. O. See Vyas, G. N., et al. Maguire, W. See Weisstein, N., et al. Maguire, W. M. See Meyer, G. E. Maienthal, M. See Fenselau, C., et al. Maier, R. J. See Bishop, P. E., et al. Maines, M. D., and A. Kappas: Metals as reg-

ulators of heme metabolism, 1215 Malaisse-Lagae, F. See Patel, Y. C., et al.

Malmivuo, J. A. See Barry, W. H., et al. Mandelonitrile β -glucuronide: synthesis and

characterization, C. Fenselau et al., 625
Manis, P. B. See Myerson, J., et al.
Mansager, E. R. See Feil, V. J., et al.
Mapping the locus of the H-Y gene on the human Y chromosome, G. C. Koo et al., 940 March, J. D. See Feinberg, I., et al

Marchase, R.: book review of The cell surface in animal embryogenesis and development,

Margitan, J. J. See Anderson, J. G., et al. Marine pollutant transfer, H. L. WINDOM and R. A. DUCE, book review by R. J. Livingston, 392

Marinez, H. M. See Holaday, J. W., et al. Marler, P., and S. Peters: Selective vocal learning in a sparrow, 519

Mars and Earth: origin and abundance of volatiles, E. Anders and T. Owen, 453 Marshall, J. F., and U. Ungerstedt: Striatal

efferent fibers play a role in maintaining rotational behavior in the rat, 62 Marx, J. L. (Research News): amaranth, a

food of the Aztecs, 40; genetic engineering, 388 (erratum, 713); neutron scattering and biological applications, 481; stress, 905, See also Peterson, K. M.

Masking of electrical by acoustic stimuli: behavioral evidence for tonotopic organization, C. J. Frederickson and G. M. Gerken, 1276

Matteson, H. H. See Smith, F. D., et al. Matthews, C., et al.: Deuterolysis of amino acid precursors: evidence for hydrogen cyanide polymers as protein ancestor, 622 Matthias, B. T. See Vandenberg, J. M.

Maugh, T. H., II (Research News): oil shale, 1023; phylogeny, 812; sulfuric acid from cars, 280; underground gasification, 1132;

Zeeman effect, 39. See also Bradow, R. L. Maul, G. A. See Molinari, R. L., et al. May, J. G. See Smith, F. D., et al.

May, R. M.: book review of Biohazard, Playing God, and The ultimate experiment, 1144

Mayer, J. See Rawitscher, M.
Maynard, V. See Bender, M. L., et al.
Mayo, C.: book review of Face-to-face interaction, 723

McCracken, G. F., and J. W. Bradbury: Paternity and genetic heterogeneity in the polygynous bat, Phyllostomus hastatus, 303 McDonald, D. M.: book review of SIF cells,

818 McGinty, D. J. See Baker, T. L.

McLester, C. See Baker, T. L.
McPeek, B. See Gilbert, J. P., et al.
McQuitty, D. N. See Bailey, J. E., et al.
McQuitty, D. N. See Bailey, J. E., et al.
Measurement of the human magnetic heart
vector, W. H. Barry et al., 1159
Mcch, L. D.: Wolf-pack buffer zones as prey

reservoirs, 320

Mechanism of suppression in Drosophila: control of sepiapterin synthase at the purple locus, J. J. Yim et al., 1168

Medical school transfers (letter), A. L. Nussbaum, 565

Medical schools and the government (letters), A. W. Wolfe et al., 122 Medical schools' problems (letter), T. A.

Ebel, 250

Mehringer, P. J., Jr., et al.: Pollen influx and volcanic ash, 257 Meindel, R. S. See Lovejoy, C. O., et al. Meites, J.: The 1977 Nobel prize in phy

siology or medicine (Research News), 594 Melatonin induction of gonadal quiescence in pinealectomized Syrian hamsters, L. Ta-

markin et al., 953
Mellman, W. J. See Jezyk, P. F., et al.
Meltzoff, A. N., and M. K. Moore: Imitation
of facial and manual gestures by human neonates, 75

Membrane adenosinetriphosphatase: a digitalis receptor?, T. Akera, 569

Memory formation: evidence for a specific neurochemical system in the amygdala, M. Gallagher et al., 423

Men and women of the corporation, R. M. KANTER, book review by A. Levine, 920

Mental set alters visibility of moving targets, R. Sekuler and K. Ball, 60

Meo, T., et al.: Glyoxalase I polymorphism in the mouse: a new genetic marker linked to H-2, 311

Mercury dispersal from lode sources in the Kuskokwim River drainage, Alaska, H. Nelson et al., 820

MESSENGER, P. S. See HUFFAKER, C. B. Metal mutagens and carcinogens affect RNA synthesis rates in a distinct manner, D. J. Hoffman and S. K. Niyogi, 513

Metals as regulators of heme metabolism, M. D. Maines and A. Kappas, 1215

Meteorite impact ejecta: dependence of mass and energy lost on planetary escape velocity, J. D. O'Keefe and T. J. Ahrens, 1249 Methylphenidate in hyperkinetic children: dif-

ferences in dose effects on learning and social behavior, R. L. Sprague and E. K. Sleator, 1274

Methodologies of hypnosis, P. W. SHEEHAN and c. w. PERRY, book review by F. J. Evans, 600

Metz, W. D. (News and Comment): accelerators at Brookhaven and Fermilab, 710; Clinch River breeder funds vetoed, 710; [John] Deutch to Department of Energy 1125; Environmental Protection Agency bans tests on humans, 711; Joint European Torus site decided, 711; national laboratories and Department of Energy, 901; nuclear licensing, 590; storage policy for spent nuclear fuel, 591; (Research News): ocean thermal energy, 178. See also

Whitmore, W. F., et al. Meyer, G. E., and W. M. Maguire: Spatial frequency and the mediation of short-term visual storage, 524

Meyers, P. A.: book review of Fate and effects of petroleum hydrocarbons in marine ecosystems and organisms, 1030

Miezin, F. M. See Myerson, J., et al.
Miké, V., and R. A. Good: Old problems, new challenges, 677
Miles, L. E. M., et al.: Blind man living in normal society has circadian rhythms of 24.9 hours, 421

MILES, R. S. See ANDREWS, S. M., et al. Miller, D. A.: Evolution of primate chromosomes, 1116, See also Koo, G. C., et al.

Miller, O. J. See Koo, G. C., et al. Miller, R. F., et al.: Amacrine cells in Necturus retina: evidence for independent yaminobutyric acid- and glycine-releasing neurons, 748

MILLER, W. H. (Ed.), Dynamics of molecular collisions, book review of, 601 Millhone, J. P.: Conservation: the Minnesota

plan (editorial), 1207 Minamikawa, J. See Jacquet, Y. F., et al.

Minard, R. See Matthews, C., et al.
Minimum size of mammalian homeotherms:

role of the thermal environment, C. R. Tracy, 1034 Mitchell, W. O. See Cole, R. M., et al.

Mittl, L. R. See Koo, G. C., et al. Moccia, R. D., et al.: Increasing frequency of

thyroid goiters in coho salmon (Oncorphychus kisutch) in the Great Lakes, 425
Möhler, H., and T. Okada: Benzodiazepine receptor: demonstration in the central nervous system, 849

MOHOOT, S. M. See ROONWAL, M. L. Molecular anthropology, M. GOODMAN et al. (Eds.), book review by R. J. Britten,

Molinari, R. L., et al.: Winter intrusions of the Loop Current, 505

Moll, L., and H. G. J. M. Kuypers: Premotor cortical ablations in monkeys: contralateral changes in visually guided reaching behavior, 317

Moon-a new appraisal from space missions and laboratory analyses. The, book review by G. W. Wetherill, 286 Moon, R. C. See Grubbs, C. J., et al.

Moore, D. D. See Denniston-Thompson, K.,

Moore, D. D., et al.: Construction of chimeric

phages and plasmids containing the origin of replication of bacteriophage lambda, 1041

Moore, M. J. See Haith, M. M., et al. Moore, M. K. See Meltzoff, A. N.

Mosteller, F. See Gilbert, J. P., et al. Mucopolysaccharidosis in a cat with arylsulfatase B deficiency: a model of Maro-teaux-Lamy syndrome, P. F. Jezyk et al.,

Murad, F. See Arnold, W. P., et al. Musty, R. E. See Gallagher, M., et al. Mutant of Paramecium defective in chemotaxis, A, J. Van Houten, 746

MUZZARELLI, R. A. A., Chitin, book review of,

Myerson, J., et al.: Magnification in striate cortex and retinal ganglion cell layer of owl monkey: a quantitative comparison, 855

Nakijima, S. See Banks, E., et al. Natelson, B. H. See Holaday, J. W., et al. Natural resources program at the United Nations University, The, W. Shearer-Izumi,

Naturally occurring plasmid carrying genes for enterotoxin production and drug resistance, C. L. Gyles et al., 198

NBS: problems and needs (letters), F. K. Willenbrock et al., 8

NBS: state of health (letter), R. D. Deslattes,

NEISSER, U., Cognition and reality, book review of, 816 Nelson, D. E., et al.: Carbon-14: direct detec-

tion at natural concentrations, 507 Nelson, E. C., et al.: Retinoyl complexes in

Batten disease, 527 Nelson, H., et al.: Mercury dispersal from lode sources in the Kuskokwim River

drainage, Alaska, 820 Nelson, J. See Matthews, C., et al. Nelson-Rees, W. A. See Rasheed, S., et al.

Nematode Caenorhabditis elegans: a new organism for intensive biological study, R. S. Edgar and W. B. Wood, 1285

Neoplastic skin lesions in salamanders from a sewage lagoon containing perylene, J. G.

Windsor, Jr. et al.

Neubauer, R. H. See Rasheed, S., et al.

Neuronal architecture of on and off pathways to ganglion cells in carp retina, E. V. Famiglietti, Jr., et al., 1267

Neuronal circadian rhythm: phase shifting by

a protein synthesis inhibitor, J. W. Jacklet,

Newman, M. J., and R. T. Rood: Implications of solar evolution for the earth's early atmosphere, 1035

ews and Comment: accelerators at Brookhaven and Fermilab, 710; Alaska wilderness, 474; American Association for the Advancement of the Humanities, 902; Antarctic oil moratorium, 709; appointments not being made by Administration, 592; Bell Labs and antitrust suit, 278; B-1 bomb er, 177; Clean Water Act revised, 1130; bowhead whale problem and the Administration, 384; carcinogen standards proposed, 279; Carter and reduction of federal bureaucracy, 900; Carter secrecy plan, 589; chemical plants contaminate two Virginia rivers, 1015; Chinese Academy of Sciences, 176; Clinch River breeder funds vetoed, 710; clinical trials, 1127; coal and energy-environment conflict, 276; coal burning offsets air pollution progress gains, 1233; cryptography meeting, 476; John] Deutch to Department of Energy, 1125; ecology and national security, 712; [Marion] Edey appointment to Council on Environmental Quality rejected, 473; electroshock experiment at State University of New York, Albany, 383, 708; Environment, 1128; Environmental Protection Agency bans tests on humans, 711; Food and Drug Administration reform, 272; Georgia dam collapse,

811; Good Laboratory Practice regulations, 1127; Harvard guidelines on Central Intelligence Agency-Harvard employees, 810; health records and privacy, 382; heroin for medical use, 807; hypnosis and pain control, 808; iceberg conference, 274; Institute of Electrical and Electronics Engineers, 1018; Joint European Torus site decided, 711; laetrile research at Sloan-Kettering, 1231; laser and Gordon Gould's patent battle, 379; lead shot banned for waterfowl, 1232; mammography controversy, 171; Marxists reported to have infiltrated British universities, 1230; [William J.] McGill and adversary method, 275; medical research in England, 1021; medical schools in the Caribbean, 1019; medical students from foreign schools, 1018; mental health, 37, 903; minerals and mining: federal policy review, 809; Mobilization for Survival, 384; National Aeronautics and Space Administration study on R & D expenditures, 810; national laboratories and Department of Energy, 901; National Medal of Science awards, 1020; nuclear fuel and storage policy, 591; nutritional lobby, 36; nuclear licensing, 590; occupational cancer and beryllium, 898; nuclear waste documentary, 1232; Office of Science and Technology, 1232; Office of Science and Technology, 472; [Russell] Peterson to Office of Technology Assessment, 592, 903; [Frank] Press as science adviser, 278, 1022; psychiatry and the United States and U.S.S.R., 593; Ptolemy accused of fraud, 707; recombinant DNA research, 176; research management scandals, 804; rocket problems in NASA-European Space Agency partnership, 385; [Carl] Rogers profile, 31; Sciences in China's development, 1129; So-ciety for Social Studies of Science, 706; Soviets and American mathematician, 174; sugared cereals, 902; Sun Day, 472; tech-nology transfer and 1979 United Nations meeting, 35; Texas power companies and coal use, 471, 586; Unidentified Flying Objects, 1128; [Robert D.] Thorne as nominee for Department of Energy post, 34; United States-West European cooperation in science declining, 175; VA hospital system under scrutiny, 36; Vietnamese science and General Giap, 173
Ng Ying Kin, N. M. K. See Nelson, E. C., et

Nicastri, A. D. See Beyer, M. M., et al. NICHOLLS, J. G. See KUFFLER, S. W.

NICOLSON, G. L. See POSTE, G. Nielsen, P. E., et al.: Plant crops as a source of fuel and hydrocarbon-like materials, 942

Nieoullon, A., et al.: Interdependence of the nigrostriatal dopaminergic systems on the two sides of the brain in the cat, 416 Nishimura, H. See Nielsen, P. E., et al. Niyogi, S. K. See Hoffman, D. J.

NOBLE, D. F., America by design, book review of, 722

Noniuvasive, infrared monitoring of cerebral and myocardial oxygen sufficiency and circulatory parameters, F. F. Jöbsis, 1264 Norman, J. L., et al.: Early development of

X-cells in kitten lateral geniculate nucleus,

Nuclear power initiatives: the IEEE position

(letter), T. H. Lee, 671 Nunn, C. Z.: Is there a crisis of confidence in science? (editorial), 995 Nussbaum, A. L.: Medical school transfers

(letter), 565

Nutrition and the brain, R. J. WURTMAN and J. J. WURTMAN (Eds.), book review by J. Dob-

Nutritional outputs and energy inputs in seafoods, M. Rawitscher and J. Mayer, 261

Ocean surface currents mapped by radar, D. E. Barrick et al., 138 Ocean wave patterns under Hurricane Gloria:

observation with an airborne syntheticaperture radar, C. Elachi et al., 609 Oceanic microcosm of particles, The, D. Lal,

O'Connor, M. J. See Welsh, F. A., et al. O'Connor, T. See Hyman, L. G., et al. Odor-aversion learning in neonatal rats, J. W. Rudy and M. D. Cheatle, 845

Ogilvie, K. W., et al.: International sun-earth explorer: a three-spacecraft program, 131 Ohtaki, T. See Sakurai, S., et al.

Okada, T. See Möhler, H.

O'Keefe, J. D., and T. J. Ahrens: Meteorite impact ejecta: dependence of mass and energy lost on planetary escape velocity, 1249 Olby, R.: book review of Comprehensive biochemistry, 1028

Old problems, new challenges, V. Miké and

Old problems, new challenges, V. Mike and R. A. Good, 677
O'Leary, T. P. See Stowe, C. M., et al.
Olsen, E. See Cassidy, W. A., et al.
Opella, S. J.: Biological nuclear magnetic res-

onance spectroscopy, 158
Optical transforms and the "pincushion grid" illusion?, M. L. Rudee et al., 960

Orci, L. See Patel, Y. C., et al. Origin and early evolution of animals, The, E. D. HANSON, book review by A. J. Kohn,

Oro, J. A. See Bailey, J. E., et al.
Osmotically induced changes in electrical properties of plant protoplast membranes, R. H. Racusen et al., 405

Otvos, J. W. See Nielsen, P. E., et al. Ou, S.-Y. L. See Batzinger, R. P., et al. Outer continental shelf operating regulations (letter), D. D. Smith and K. F. Graham, 1202

Owen, T. See Anders, E. Oxygen and hydrogen iostopic ratios in plant

cellulose, S. Epstein *et al.*, 1209 Oxygen isotopic analysis of the size fraction between 62 and 250 micrometers in Caribbean cores P6304-8 and P6304-9, C. Emiliani, 1255

Padgett, D. W. See Sáenz, A. W., et al. Palchaudhuri, S. See Gyles, C. L., et al. Paleodemography of the Libben site, Ottawa County, Ohio, C. O. Lovejoy et al., 291 Pallante, S. See Fenselau, C., et al. Palmer, L. G. See Ling, G. N., et al.

Panhandling as an example of the sharing of resources, P. L. Knowles and J. S. Lock-

Parkes, M. See Pihl, R. O.
Patel, Y. C., et al.: Somatostatin: widespread abnormality in tissues of spontaneously diabetic mice, 930

Paternity and genetic heterogeneity in the polygynous bat, *Phyllostomus hastatus*, G. F. McCracken and J. W. Bradbury, 303

Patterns of supernumerary limb regeneration, L. Glass, 321

Patterson, D. F. See Jezyk, P. F., et al. Pelletier, S. W. See De Camp, W. H. Pellett, P. L. See Simon, E. L., et al. Peptides in neurobiology, H. GAINER (Ed.),

book review by L. Iversen, 1247
Peptidoglycan in the cell wall of the primary intracellular symbiote of the pea aphid, E. J. Houk et al., 401

Perlman, D.: Scientific announcements (let-

ter), 782 PERRY, C. W. See SHEEHAN, P. W. Peshkin, M. See Hyman, L. G., et al.

Peters, M., et al.: Hypertension and the nature of stress, 80

Peters, S. See Marler, P. Petersen, K. L. See Mehringer, P. J., Jr., et

Peterson, D. L. See Vyas, G. N., et al. Peterson, K. M., and J. L. Marx: Chitin synthesis inhibitors: effects on fungi? (letters),

Pettigrew, J. D. See Knudsen, E. I., et al. See also Norman, J. L., et al.

Pfeiffer, J. E., The emergence of society, book review of, 183

Phantom-motion aftereffect, N. Weisstein et

al., 955 Phosphoribosylpyrophosphate synthesis cultured human cells, P. J. Benke and D. Dittmar, 1171

Photographic determination of group size. composition, and stability of coastal porpoises (Tursiops truncatus), Würsig and M. Würsig, 755 The.

Phototoxic keratoconjunctivitis from coal-tar pitch volatiles, E. A. Emmett et al., 841
Physical structure of the replication origin of bacteriophage lambda, K. Denniston-Thompson et al., 1051

Pihl, R. O., and M. Parkes: Hair element content in learning disabled children, 204 Pilbeam, D. See Gantt, D. G., et al.

Pituitary nuclear 3,5,3'-triiodothyronine and thyrotropin secretion: an explanation for the effect of thyroxine, J. E. Silva and P. R. Larsen, 617

Planetary radiation balance as a function of atmospheric dust: climatological consequences, S. B. Idso and A. J. Brazel, 731 Planetary satellites, J. A. BURNS (Ed.), book

review by W. M. Kaula, 1147 Plant crops as a source of fuel and hydro-carbon-like materials, P. E. Nielsen et al., 942

Playing God, J. GOODFIELD, book review by R. M. May, 1144
Plummer, E. W., and T. Gustafsson: Geome-

try of adsorbates on solid surfaces, 165 Poller influx and volcanic ash, P. J. Mehrin-

ger, Jr. et al., 257 Polson, P. G.: book review of Language,

memory, and thought, 922

Polychlorobornane components of toxaphene: structure-toxicity relations and metabolic reductive dechlorination, M. A. Saleh *et al.*, 1256

leukocytes: Polymorphonuclear possible mechanism of accumulation of psoriasis: G. S. Lazarus et al., 1162

Porac. C. See Coren. S.

POSTE, G., and G. L. NICOLSON (Eds.), The cell surface in animal embryogenesis and development, book review of, 500

Postnatal development of the human lateral geniculate nucleus: relationship to a critical period for the visual system, T. L. Hickey, 836

Posttranslational covalent modification of proteins, R. Uy and F. Wold, 890

Potassium accumulation in frog muscle: the association-induction hypothesis versus the membrane theory, G. N. Ling et al., 1281

Prehistory of the Far West, L. S. CRESSMAN, book review by C. I. Busby, 817
Premotor cortical ablations in monkeys: con-

tralateral changes in visually guided reaching behavior, L. Moll and H. G. J. M. Kuypers, 317

Press, F., and W. D. Carey: Intergovernmental science panel (letters), 988 Price, L. J. See Feinberg, I., et al.

Prigogine at the University of Texas (letter). J. D. Swartz, 1289

Primates of South Asia, M. L. ROONWAL and S. M. MOHNOT, book review by J. G. Fleagle, 724

Primordial noble gases in chondrites: the abundance pattern was established in the

solar nebula, L. Alaerts et al., 927 Prinn, R. G., and S. S. Barshay: Carbon monoxide on Jupiter and implications for atmospheric convection, 1031

Problems in economic and social archaeology, G. DE G. SIEVEKING et al. (Eds.), book review by R. J. Carpenter, 183

Problems in vertebrate evolution, s. M. AN-DREWS et al. (Eds.), book review by R. Estes. 499

Procaccia, I., and J. Ross: The 1977 Nobel prize in chemistry (Research News). 716; erraium, 812

Protease inhibitors and muscular dystrophy (letter), A. Stracher, 1100 Pryzbeck, T. R. See Lovejoy, C. O., et al.

Pulmonary metabolism during diving: conditioning blood for the brain, P. W. Hochachka et al., 831

Purser, K. H. See Bennett, C. L., et al.

Quantitative single cell analysis and sorting, P. K. Horan and L. L. Wheeless, Jr., 149 Question about !Kung ecology, A (letter), B. J. Williams, 782 Ovist, J. See Hochachka, P. W., et al.

R

Raab, E. See Bodis-Wollner, L., et al.

Rabin, H. See Rasheed, S., et al. Racusen, R. H., et al.: Osmotically induced changes in electrical properties of plant protoplast membranes, 405

Radiocarbon dating using electrostatic accelerators: negative ions provide the key, C. L. Bennett *et al.*, 508

Radioimmunoassay for antibodies to cytoplasmic ribosomes in human serum, D.

Koffler et al., 741 Rao, M. S. See Reddy, J. K.

Rappaport, H. See Baltimore, D., et al. Rasheed, S., et al.: Establishment of a cell line with associated Epstein-Barr-like virus from a leukemic orangutan, 407 Rate-dependency hypothesis, P. B. Dews et

al., 1182

Rawitscher, M., and J. Mayer: Nutritional outputs and energy inputs in seafoods, 261

Rayhrer, B. See Yen, J. L., et al. Raymond Lindeman and the trophic-dynamic concept in ecology, R. E. Cook, 22 Raynal, D. M. See Miles, L. E. M., et al.

Real-time, very-long-baseline interferometry based on the use of a communications satellite, J. L. Yen et al., 289

Recent Foraminifera, E. BOLTOVSKOY and R. WRIGHT, book review by A. W. H. Bé, 924 Receptive fields of auditory neurons in the owl, E. I. Knudsen et al., 1278

Recombinant DNA controversy (letter), A. W. Johnson, 123

Recombinant DNA guidelines: scientific and political questions (letter), W. P. Rowe, 563 Recombinant DNA legislation-what next? (editorial), H. O. Halvorson, 357 Reddy, J. K., and M. S. Rao: Transplantable

pancreatic carcinoma of the rat, 78 Redman, C. L.: book review of The emer-

gence of society, 183

Regenerating afferents establish synapses with a target neuron that lacks its cell body. F. B. Krasne and S.-H. Lee, 517

Regeneration of Douglas fir plantlets through tissue culture, T.-Y. Cheng and T. H. Voqui, 306

Regions of cerebral ischemia located by pyridine nucleotide fluorescence, F. A. Welsh et al., 951

Reichlin, S. See Jackson, I. M. D. Reimold, R. J. See Hardisky, M. A.

Reino, D. See Isseroff, H., et al. Reisenauer, A. M., et al.: Folate conjugase: two separate activities in human jejunum,

Research News: amaranth, a food of the Aztecs, 40; astronomy in Chile comes of age, 1235; bacterial genetics, 41; elementary particles, 180; genetic engineering, 388 (erratum, 713); high energy physics and quarks and leptons, 478; mathematics and magic, 282; neutron scattering and biological applications, 481; Nobel prize in chemistry, 716 (erratum, 812); Nobel prize in economics, 813; Nobel prize in physics, 713; Nobel prize in physiology or medicine. 594; obesity, 905; ocean thermal energy. 178; oceanography and Gulf Stream rings, 387; oil in the ocean, 1134; oil shale, 1023; 38/; oil in the ocean, 1134; oil shale, 1025; phylogeny, 812; protein degradation, 596; science writing award, 907; stress, 905; sulfuric acid from cars, 280; underground gasification, 1132; unified gauge theories, 908; Zeeman effect, 39

Research, regulation, and the public interest (letter), P. Weinberg, 668
Resing, H. A. See Chang, D. C., et al.
Responsibility for health (editorial), J. H.
Knowles, 1103

13-cis-Retinoic acid: inhibition of bladder carcinogenesis induced in rats by N-butyl-N-(4-hydroxybutyl)nitrosamine, C. J. Grubbs

Retinoyl complexes in Batten disease, E. C. Nelson et al., 527

Reversal of cardiopulmonary failure during active sleep in hypoxic kittens: implications for sudden infant death, T. L. Baker and D.

J. McGinty, 419 Rhoads, D. C. See Lutz, R. A. Rice, K. C. See Jacquet, Y. F., et al. Riggs, A. D. See Itakura, K., et al.

RINGERTZ, N. R., and R. E. SAVAGE, Cell hybrids, book review of, 1248

Ringo, G. R. See Hyman, L. G., et al. Ringo, J., et al.: Trichromatic vision in the cat, 753

Rizzo, P. J., and E. R. Cox: Histone occurrence in chromatin from Peridinium balti-

cum, a binucleate dinoflagellate, 1258 Robinson, A. L. (Research News): elementary particles, 180; high energy physics and quarks and leptons, 478; unified gauge theories, 908

Rodriguez, R. J., et al.: Elastase release from human alveolar macrophages: comparison between smokers and nonsmokers,

ROGERS, M., Biohazard, book review of, 1144 Rohl, A. N., et al.: Chrysotile asbestos: effects of human exposure (letter), 1202 Rongey, R. W. See Rasheed, S., et al. Rood, R. T. See Newman, M. J.

ROONWAL, M. L., and S. M. MOHNOT, Primates of South Asia, book review of, 724
Rose, F. L. See Windsor, J. G., Jr., et al.
Rosene, D. L., and G. W. Van Hoesen: Hippocampal efferents reach widespread areas

of cerebral cortex and amygdala in the rhesus monkey, 315 Rosenthal, I. M. See Koo, G. C., et al.

Ross, J. See Procaccia, I.
Rothwell, G. W.: Evidence for a polination-

drop mechanism in Paleozoic pteridosperms, 1251

ROUX, E. (Ed.), Electrical phenomena at the biological membrane level, book review of,

Rowe, W. P.: Recombinant DNA guidelines: scientific and political questions (letter), 563

Rudee, M. L., et al.: Optical transforms and the "pincushion grid" illusion?, 960 Rudy, J. W., and M. D. Cheatle: Odor-aver-

sion learning in neonatal rats, 845 Rumelhart, D. E.: book review of Cognition

and reality, 816 Runbeek, A. See Meo, T., et al.

Ruoff, A. L., and J. Wanagel: High pressures on small areas, 1037

Ruth, G. R., et al.: Bovine protoporphyria: the first nonhuman model of this hereditary photosensitizing disease, 199

Saccharin and other sweeteners: mutagenic properties, R. P. Batzinger et al., 944 Sadleir, R. M. F. S.: book reviews of The biology of marsupials and The biology of marsupials, 1147

Sáenz, A. W., et al.: Telecommunication with

neutrino beams, 295 Sakurai, S., et al.: 3β-Hydroxy-5α-cholestan-6-one: a possible precursor of α -ecdysone biosynthesis, 627 Saleh, M. A., et al.: Polychlorobornane com-

ponents of toxaphene: structure-toxicity relations and metabolic reductive dechlorination, 1256

Saltatory motility of uninserted trichocysts and mitochondria in Paramecium tetraurelia, K. J. Aufderheide, 299

Salt-marsh plant geratology, M. A. Hardisky and R. J. Reimold, 612

Saunders, G. F. See Lomedico, P. T.

Sawma, J. T. See Isseroff, H., et al.
Saxena, B. B. See Jovanovic, L., et al.
Saxena, S. K.: The charnockite geotherm,
614. See also Cantor, S.

Schachar, R. A. See Rudee, M. L., et al. Schiavone, K. See Sherline, P. Schneider, R. See Hockachka, P. W., et al. Schreck, R. R. See Koo, G. C., et al.

Schwartz, S. See Ruth, G. R., et al. Schwartz, S. M. See Grantham, R.

Scientific announcements (letter), D. Perlman, 782

Screening for twin pregnancy, L. Jovanovic et al., 738 SEARLE, G. R., Eugenics and politics in Brit-

ain, 1900-1914, book review of, 498 Sedimentary polycyclic aromatic hydrocarbons: the historical record, R. A. Hites et al., 829

Seeman, N. See Sáenz, A. W., et al. Segal, D. S., et al.: β-Endorphin: endogenous opiate or neuroleptic?, 411 Sekular, R., and K. Ball: Mental set alters vis-ibility of moving targets, 60

Selective destruction of neurons by a transmitter agonist, R. M. Herndon and J. T.

Selective vocal learning in a sparrow, P. Marler and S. Peters, 519

Selikoff, I. J. See Rohl, A. N., et al. Senior, R. M. See Rodriguez, R. J., et al.

Sex-ratio adjustment in the common grackle, H. F. Howe, 744 Shackleton, N. J. See Evans, D. L., et al. Shapiro, L. C. See Banks, E., et al.

SHAPIRO, S. See HEINONEN, O. P., et al. Shapley, D. (News and Comment): Bell Labs and antitrust suit, 278; carcinogen standards proposed, 279; cryptography meeting, 476; Environment, 1128; occupational cancer and beryllium, 898; [Frank] Press as science adviser, 278; research management scandals, 804; science and China, 1129; Un-identified Flying Objects, 1129; Vietnamese

science and General Giap, 173 Shearer-Izumi, W.: The natural resources program at the United Nations University,

SHEEHAN, P. W., and C. W. PERRY, Methodol-

ogies of hypnosis, book review of, 600 Sheets, J. W. See Kaufman, H. E., et al. Shefner, J. M., and M. W. Levine: Inter-actions between rod and cone systems in

the goldfish retina, 750
Sheinin, E. B. See Fenselau, C., et al.
Sherline, P., and K. Schiavone: Immunofluorescence localization of proteins of high molecular weight along intracellular microtubules, 1038

Shinnick-Gallagher, P. See Gallagher, J. P. Shows, T. B.: book review of Cell hybrids, 1248

Siegel, J. See Lukas, J. H.

SIEVEKING, G. DE G., et al. (Eds.), Problems in economic and social archaeology, book review of, 183

D. M. McDonald, 818
Silva, J. E., and P. R. Larsen: Pituitary nuclear 3,5,3'-triiodothyronine and thyrotropin secretion: an explanation for the effect of thyroxine, 617

Simple solutions: concentrations in the sur-

Simple solutions: concentrations in the surface region, S. D. Christian et al., 210
Sims, S. See Garfield, R. E., et al.
Simson, E. L., et al.: Axon-sparing brain lesioning technique: the use of monosodium-L-glutamate and other amino acids, 515

Simultaneous effects of erythropoietin and colony-stimulating factor on bone marrow

cells, G. Van Zant and E. Goldwasser, 733 Singer, S. F.: Soil and coal: a cost-benefit inquiry (editorial), 255

Sinton, W. M.: Uranus: the rings are black,

Sleator, E. K. See Sprague, R. L. SLONE D. See HEINONEN, O. P., et al. Slope profiles of cycloidal form, B. J. Bridge

and G. G. Beckman, 610 Slow virus infections of the central nervous

system, v. TER MEULEN and M. KATZ (Eds.), book review by W. J. Hadlow, 48 Smith, D. D., and K. F. Graham: Outer continental shelf operating regulations (letter),

Smith, F. D., et al.: Checkerboards and color

aftereffects, 207

Smith, R. J. (News and Comment): Carter and reducing federal bureaucracy, 900; Carter secrecy plan, 589; electroshock experiment at State University of New York, Albany, 383, 708; Food and Drug Administration reform, 272; Georgia dam collapse, 811; Harvard guidelines on Central Intelligence Agency-Harvard 810; National Aeronautics and Space Administration study on R & D expenditures, 810. See also Tedeschi, J. T., et al.

Snider, M. Y. See Hockachka, P. W., et al. SNYDER, R. See JOLLOW, D. J., et al. Social imperatives of medical research. The.

L. Eisenberg, 1105 Soil and coal: a cost-benefit inquiry (editori-

al), S. F. Singer, 255 Solar energy: the prospects for OTEC (let-ters), W. F. Whitmore et al., 989 SOLHEIM, S., and J. RAA (Eds.), Cell wall bio-

chemistry related to specificity in host-plant pathogen interactions, book review of, 47 Sollins, P. See Graustein, W. C., et al. Somatostatin: widespread abnormality in tis-

sues of spontaneously diabetic mice, Y. C. Patel et al., 930

Some thoughts on clinical trials, especially problems of multiplicity, J. W. Tukey, 679 Sondheim, W. E. See Bennett, C. L., et al. Sonstegard, R. A. See Moccia, R. D., et al. Sorg, D. H. See Nelson, H., et al.

Spark discharge: application to multielement spectrochemical analysis, J. P. Walters, 787 Spatial frequency and the mediation of short-term visual storage, G. E. Meyer and W.

M. Maguire, 524 Spector, S. See Iwatsuki, K., et al. Spencer, J. H. See Haschick, A. D., et al. Spiroplasmavirus citri 3: propagation, purifi-

cation, proteins, and nucleic acid, R. M.

Cole et al., 1262
Sporn, M. B. See Grubbs, C. J., et al.
Sprague, R. L., and E. K. Sleator: Methylphenidate, in hyperkinetic children: differential control of the control ferences in dose effects on learning and social behavior, 1274

Spriestersbach, D. C., and W. J. Farrell: Impact of federal regulations at a university, 27

Squire, R. A. See Grubbs, C. J., et al. Standish, L. J. See Simson, E. L., et al. Statistics and ethics in surgery and anesthesia, J. P. Gilbert et al., 684

Stedman, D. H. See Anderson, J. G., et al. Stefan, Y. See Patel, Y. C., et al.

STEIN, R. G., Architecture and energy, book review of, 391

Steinberg, A. D. See Beyer, M. M., et al. Stell, W. K., et al.: Structural basis for on-and off-center responses to retinal dipolar cells, 1269

Stephenson, B. See Ruth, G. R., et al. Stereospecific and nonstereospecific effects of (+)- and (-)-morphine: evidence for a new class of receptors?, Y. F. Jacquet et al., 842 Stetzer, L. See Emmett, E. A., et al. Stevens, C. F.: book review of From neuron

to brain and The cellular basis of behavior,

Steward, G. P. See Gantt, D. G., et al. Stiles, F. G.: Coadapted competitors: the flowering seasons of hummingbird-pollinated plants in a tropical forest, 117

Stinson, S. F. See Grubbs, C. J., et al. Stoltzfus, V. See Johnson, W. A., et al.

Stone, B. J. See Blot, W. J., et al.
Stone, E. L., and R. Kszystyniak: Conservation of potassium in the Pinus resinosa ecosystem, 192

STONEHOUSE, B., and D. GILMORE (Eds.). The biology of marsupials, book review of, 1147 Stott, W. R. See Nelson, D. E., et al. Stowe, C. M., et al.: Amaranth: use as food (letter), 668

Stracher, A.: Protease inhibitors and muscu-

lar dystrophy (letter), 1100 Strausser, H. R. See Lattime, E. C.

Striatal efferent fibers play a role in maintaining rotational behavior in the rat, J. F. Marshall and U. Ungerstedt, 62

Structural basis for on- and off-center responses in retinal dipolar cells, W. K. Stell et al., 1269

Structural chemistry of layer-type phases, HULLIGER, book review by F. Sisalvo, 1030 Style and science (letter), R. Huxtable, 668

Submarine seepage of natural gas in Norton Sound, Alaska, J. D. Cline and M. L. Holmes, 1149

Suid evolution and correlation of African hominid localities, T. D. White and J. M. Harris, 13

Sulfuric acid emissions from cars (letters), R. L. Bradow and T. H. Maugh II, 880 Swartz, H. M., and P. L. Gutierrez: Free rad-

ical increases in cancer: evidence that there is not a real increase, 936

Swartz, J. D.: Prigogine at the University of Texas (letter), 1289

Sweet, G. H. See Whitehead, P. H. Sweet, W. C.: book review of Concepts and methods of biostratigraphy, 285 Swenson, G. W., Jr. See Yen, J. L., et al.

Synchronized ultradian cortisol rhythms in monkeys: persistence during corticotropin infusion, J. W. Holaday et al., 56

Syzdek, L. D. See Baylor, E. R., et al.

T

Tachibana, M. See Famiglietti, E. V., Jr., et

Talty, J. T.: Carcinogens in industry (letter),

Tamarkin, L., et al.: Melatonin induction of gonadal quiescence in pinealectomized Syrian hamsters, 953

Tan, H. K., and J. C. Andersen: Human factor VIII: morphometric analysis of purified material in solution, 932

Tantravahi, R. See Koo, G. C., et al. Taphorn, B. See Emmett, E. A., et al.

Tarrant, G. M. See Holliday, R., et al. TASHIAN, J. H. See GOODMAN, M., et al. TASHIAN, R. E. See GOODMAN, M., et al.

Tedeschi, J. T., et al.: Human subjects research (letters), 1099 Teicher, M. H., and E. M. Blass: First suck-

ling response of the newborn albino rat: the roles of olfaction and amniotic fluid, 635

Telecommunication with neutrino beams, A. W. Sáenz et al., 295 Temin, H. M. See Baltimore, D., et al. TER MEULEN, V., and M. KATZ (Eds.), Slow

virus infections of the central nervous system, book review of, 48 Testing the commitment theory of cellular ag-

ing, R. Holliday et al., 366
Theory and practice of biological control, c.

B. HUFFAKER and P. S. MESSENGER (Eds.), book review by M. J. Way, 1029 Thomas, C. A. See Lazarus, G. S., et al. Thomas, L.: Biostatistics in medicine (editori-

Thompson, D. A., and R. G. Campbell: Hunger in humans induced by 2-deoxy-D-glucose: glucoprivic control of taste preference and food intake, 1065

Thompson, P. See Epstein, S., et al.

Thompson, T. W. See Elachi, C., et al. Thoughts on reorganization (editorial), W. D. Carey, 129

Thyrotropin-releasing hormone: abundance in the skin of the frog, Rana pipiens, I. M. D. Jackson and S. Reichlin, 414

Tiedt, T. N., et al.: Degenerating nerve fiber products do not alter physiological proper ties of adjacent innervated skeletal muscle fibers, 839

Tilevitz, O. See Banks, E., et al.
Townsend, R. M. See Vyas, G. N., et al.
Tracy, C. R.: Minimum size of mammalian homeotherms: role of the thermal environment, 1034

Transplantable pancreatic carcinoma of the rat, J. K. Reddy and M. S. Rao, 78

ree-ring-drought relationships in the Hud-son Valley, New York, E. R. Cook and G. C. Jacoby, Jr., 399 Trenkle, A., and R. L. Willham: Beef produc-

tion efficiency, 1009

Trichromatic vision in the cat, J. Ringo et al.,

Trotter, D. E. See Eddy, J. A., et al. Truzzi, M.: Investigating paranormal claims

(letter), 448
Tucker, E. E. See Christian, S. D., et al.
Tukey, J. W.: Some thoughts on clinical trials, especially problems of multiplicity, 679 urner, W. V. See Saleh, M. A., et al.

Two-billion-year granulites in the Late Precambrian metamorphic basement along the southern Peruvian coast, B. Dalmayrac et

Tyler, C. W. See Smith, F. D., et al.

U

Überall, H. See Sáenz, A. W., et al. Udenfriend, S. See Iwatsuki, K., et al. Ugolini, F. C., et al .: Direct evidence of particle migration in the soil solution of a Podzol. 603 Ultimate experiment, The, N. WADE, book review by R. M. May, 1144
Ungerstedt, U. See Marshall, J. F.

Unilateral nephrectomy: effect on survival in NZB/NZW mice, M. M. Beyer et al., 511 UVAROV, B. (Ed.), Grasshoppers and locusts, book review of, 1247

Uranus: the rings are black, W. M. Sinton, 503

Uy, R., and F. Wold: Posttranslational covalent modification of proteins, 890

VAINIO, H. See JOLLOW, D. J., et al. Valenti, J. See Kaufman, H. E., et al. Vandenberg, J. M., and B. T. Matthias: Clustering hypothesis of some high-temperature

superconductors, 194 Vanderplas, J. M. See Gaschnig, J. Van Devender, T. R.: Holocene woodlands in the southwestern deserts. 189
Van Hoesen, G. W. See Rosene, D. L.
Van Houten, J.: A mutant of Paramecium de-

fective in chemotaxis, 746

van Pelt, J., III. See Wolfe, A. W., et al. Van Zant, G., and E. Goldwasser: Simultaneous effects of erythropoietin and colonystimulating factor on bone marrow cells.

Variations in the earth's orbit: pacemaker of the ice ages?, D. L. Evans et al., 528 Varma, P. See Matthews, C., et al.

Veatchine: coexistence of epimers in a crystal structure, W. H. De Camp and S. W. Pelle-

Veblen, D. R., et al.: Asbestiform chain silicates; new minerals and structural groups,

Vernick, S. See Wolfe, A. W., et al. Viau, M. See Constans, J.

Vibrio cholerae, Vibrio parahaemolyticus, and other vibrios: occurrence and distribution in Chesapeake Bay, R. R. Colwell et al., 394

Virus transfer from surf to wind, E. R. Baylor

Visual association cortex and vision in man: pattern-evoked occipital potentials in a blind boy, I. Bodis-Wollner et al., 629 von Rosenvinge, T. See Ogilvie, K. W., et al.

Voqui, T. H. See Cheng, T.-Y. Vyas, G. N., et al.: Hepatitis B "e" antigen: an apparent association with lactate dehydrogenase isozyme-5, 1068

W

Wachtel, S. S.: H-Y antigen and the genetics of sex determination, 797. See also Koo, G. C., et al.

Wade, N. (News and Comment): B-1 bomber, 177; Chinese Academy of Sciences, 176; laetrile research at Sloan-Kettering, 1231; laser and Gordon Gould's patent battle, 379; medical research in England, 1021; Ptolemy accused of fraud, 707; recombinant DNA

research: 176
WADE, N., The ultimate experiment, book review of, 1144

Wagner, H. G. See Ringo, J., et al. WALKER, A. D. See ANDREWS, S. M., et al. Walker, J. M. See Feinberg, I., et al.

Wallace, R. B., et al.: Localization of the globin gene in the template active fraction of chromatin of Friend leukemia cells. 1166

Walsh, J. (News and Comment): bowhead whale problem, 384; Institute of Electrical and Electronics Engineers, 1018; medical schools in the Caribbean, 1019; medical students from foreign schools, 1018; Mobiliza-tion for Survival, 384; rocket problems in National Aeronautics and Space Administration-European Space Agency partner-ship, 385; Society for Social Studies of Science. 706: technology transfer and 1979 United Nations meeting, 35: Texas power companies and coal use, 471, 586; United States-West European cooperation in science declining, 175

WALSH, J. J. See CUSHING, D. H. Walters, J. P.: Spark discharge: application to multielement spectrochemical analysis, 787

multielement spectrochemical analysis, 78/Waltman, W. B. See Yen, J. L., et al. Walton, N. Y. See Deutsch, J. A. Wanagel, J. See Ruoff, A. L. Ward, G. M., et al.: Beef production options and requirements for fossil fuel, 265 "Watchdog" of the government? (letter), D. E. Lilienfeld and A. M. Lilienfeld, 250 Water vapor maser "turn-on" in the HH region W3 (OH). A. D. Haschick et al. 1153

gion W3 (OH), A. D. Haschick et al., 1153 Watson, D.: book review of Architecture and

energy, 391 Way, M. J.: book review of Theory and practice of biological control, 1029

Weber, B. L. See Barrick, D. E., et al. Weinberg, P.: Research, regulation, and the public interest (letter), 668 Weisstein, N., et al.: A phantom-motion aftereffect, 955

Weizenbaum, J.: Computers as "therapists" (letter), 354 Welsh, F. A., et al.: Regions of cerebral is-

chemia located by pyridine nucleotide fluorescence, 951

West German breeder cost (letter). O. Keck. 448

Wetherill, G. W .: book review of The moona new appraisal from space missions and

laboratory analyses, 286
Wheeless, L. L., Jr. See Horan, P. K.
White, M. J. D.: book review of Grasshoppers and locusts, 1247

White, R. R. See Rodriguez, R. J., et al. White, T. D., and J. M. Harris: Suid evolution and correlation of African hominid localities 13

Whitehead, P. H., and G. H. Sweet: Crossed electroimmunodiffusion and bloodstain investigations, 427

Whitmore, W. F., et al.: Solar energy: the prospects for OTEC (letters), 989 Wikswo, J. P., Jr. See Barry, W. H., et al.

WILEY, M. (Ed.), Estuarine processes, book review of, 724
Wilkins, R. W. T.: Fluid inclusion assem-

blages of the stratiform Broken Hill ore deposit, New South Wales, Australia, 185 Will Xerox kill Gutenberg? (editorial), G.

Hardin, 883

Willenbrock, F. K., et al.: NBS: problems and needs (letters), 8 Williams, B. G. See Moore, D. D., et al.

Williams, B. J.: A question about !Kung ecology (letter), 782

Williams, R. See Crandall, R. S. Williamson, A. R.: book review of Cold Spring Harbor symposia on quantitative biology, vol. 41, 599

WILSON, K. E. See SIEVEKING, G. DE G., et al.

Wilson, M. A. See Miles, L. E. M., et al. WINDOM, H. L., and R. A. DUCE, Marine pollutant transfer, book review of, 392

Windsor, J. G., Jr., et al.: Neoplastic skin lesions in salamanders from a sewage lagoon

containing perylene, 1280 Winter intrusions of the Loop Current, R. L. Molinari et al., 505

Wirtshafter, D., and J. D. Davis: Body weight: reduction by long-term glycerol treatment, 1271

Wodinsky, J.: Hormonal inhibition of feeding and death in Octopus: control by optic gland secretion, 948 Woessner, D. E. See Chang, D. C., et al.

Wolbarsht, M. L. See Ringo, J., et al. Wold, F., See Uy, R. Wolf-pack buffer zones as prey reservoirs, L.

D. Mech. 320

Wolfe, A. W., et al.: Medical schools and the government (letters), 122 WOLFE, D. A. (Ed.), Fate and effects of petro-

leum hydrocarbons in marine ecosystems

and organisms, book review of, 1030
Wolfe, L. S. See Nelson, E. C., et al.
Wolkstein, M. See Bodis-Wollner, I., et al.
Wolman, M. G.: Interdisciplinary education: a continuing experiment, 800

Women researchers analyze education, job barriers (AAAS), N. C. Joyce and P. Q. Hall, 917

Wonders, T. R. See Hochachka, P. W., et al. Wood, W. B. See Edgar, R. S.

WRIGHT, R. See BOLTOVSKOY, E. Würsig, B., and M. Würsig: The photographic determination of group size, composition, and stability of coastal porpoises (*Tursiops truncatus*), 755

Würsig, M. See Würsig, B. WURTMAN, J. J. See WURTMAN, R. J. Wurtman, J. J., and R. J. Wurtman: Fenfluramine and fluoxetine spare protein consumption while suppressing caloric intake by rats, 1178

Wurtman, R. J. See Wurtman, J. J. WURTMAN, R. J., and J. J. WURTMAN (Eds.), Nutrition and the brain, book review of, 287

Yanai, K. See Cassidy, W. A., et al. Yapp, C. J. See Epstein, S., et al. Yen, J. L., et al.: Real-time, very-long-baseline interferometry based on the use of a communications satellite, 289 Yim, J. J., et al.: Mechanism of suppression

in Drosophila: control of sepiapterin synthase at the purple locus, 1168 Yost, F. J., Jr. See Lazarus, G. S., et al.

Z

Zachara, J. See Ugolini, F. C., et al. Zapol, W. M. See Hochachka, P. W., et al. Zaret, B. L. See Caride, V. J. Zemon, V. See Smith, F. D., et al.

